```
=> fil reg
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STRUCTURE FILE UPDATES:   15 NOV 2009  HIGHEST RN 1192409-16-7
DICTIONARY FILE UPDATES:  15 NOV 2009  HIGHEST RN 1192409-16-7

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=> d que stat l24
L8               SCR 2043 OR 2049
L20              STR
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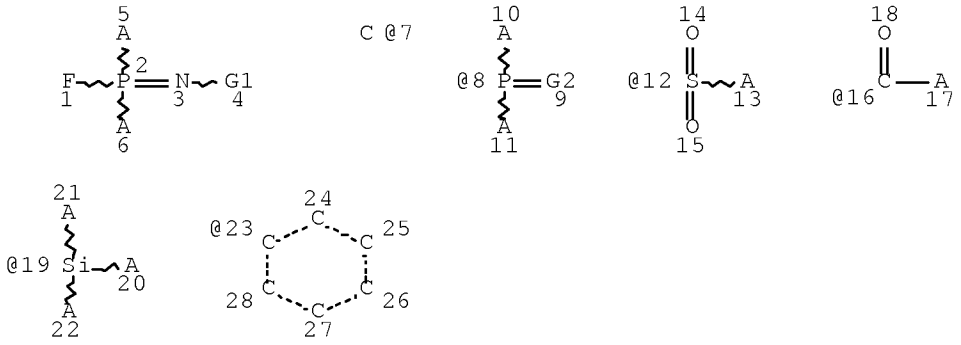


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VAR G1=8/12/16/19/23
VAR G2=O/S/7/SI/N/P
NODE ATTRIBUTES:
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS  28

STEREO ATTRIBUTES: NONE
L21             STR
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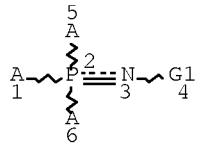


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS   7

STEREO ATTRIBUTES: NONE
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L24         141 SEA FILE=REGISTRY SUB=L22 SSS FUL L20 NOT L8

100.0% PROCESSED     265 ITERATIONS                          141 ANSWERS
SEARCH TIME: 00.00.01



=> d his

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     FILE 'REGISTRY' ENTERED AT 17:52:41 ON 16 NOV 2009
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L1              STR
L2  (     93768)SEA FILE=REGISTRY SSS FUL L1
L3              STR
L4              SCR 2043 OR 2049
L5          222 SEA FILE=REGISTRY SUB=L2 SSS FUL L3 NOT L4
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                ACT WEI558S2/A
               ---------
L6              STR
L7  (     93768)SEA FILE=REGISTRY SSS FUL L6
L8              SCR 2043 OR 2049
L9              STR
L10         186 SEA FILE=REGISTRY SUB=L7 SSS FUL L9 NOT L8
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L11          36 S L5 NOT L10

     FILE 'HCAPLUS' ENTERED AT 17:53:54 ON 16 NOV 2009
L12          58 S L10
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L13          32 S L11
L14          84 S L12 OR L13
L15             QUE ELECTROLY?
L16             QUE BATTERY
L17          10 S L14 AND L15-16
L18          74 S L14 NOT L17
L19          73 S L18 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)

     FILE 'LREGISTRY' ENTERED AT 17:58:33 ON 16 NOV 2009
L20             STR L9

     FILE 'REGISTRY' ENTERED AT 18:00:10 ON 16 NOV 2009
                ACT WEI558/A
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L21             STR
L22       93768 SEA FILE=REGISTRY SSS FUL L21
               ---------
L23           9 S L20 NOT L8 SSS SAM  SUB=L22
L24         141 S L20 NOT L8 SSS FUL SUB=L22

     FILE 'HCAPLUS' ENTERED AT 18:02:13 ON 16 NOV 2009
L25          51 S L24
L26          42 S L19 AND L25


=> fil hcap
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FILE COVERS 1907 - 16 Nov 2009  VOL 151 ISS 21
FILE LAST UPDATED: 15 Nov 2009  (20091115/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Aug 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Aug 2009

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reclassification data for the third quarter of 2009.

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number of free displays and other databases participating in this
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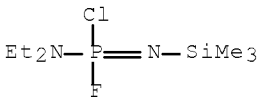
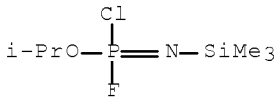
offer appear in NEWS 10.

=> d ibib abs hitstr hitind l26 1-42

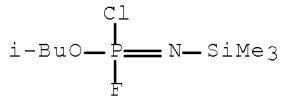
L26 ANSWER 1 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:609556 HCAPLUS Full-text
DOCUMENT NUMBER: 126:18954
ORIGINAL REFERENCE NO.: 126:3937a,3940a
TITLE: Synthesis of N-trimethylsilyl chloro(fluoro)imidophosphates
AUTHOR(S): Zavorin, S. I.; Lermontov, S. A.; Martynov, I. V.
CORPORATE SOURCE: Institut Fiziologicheski Aktivnykh Veshchestv, Chernogolovka, 142432, Russia
SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1996), (5), 1295-1296
CODEN: IASKEA
PUBLISHER: Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 126:18954
AB Treating RP(F)N(SiMe3)2 (R = Et2N, Me2CHO, Me2CHCH2O) with CCl3CN or CCl3CO2Et in Et2O gave 20-85% RP(F)(Cl):NSiMe3.
IT 184352-03-2P 184352-05-4P
184352-07-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of trimethylsilyl chloro(fluoro)imidophosphates by oxidative chlorination of bis(trimethylsilyl) fluoroamidophosphites)
RN 184352-03-2 HCAPLUS
CN Phosphoramidimidic chloride fluoride, N,N-diethyl-N'-(trimethylsilyl)- (9CI) (CA INDEX NAME)



RN 184352-05-4 HCAPLUS
CN Phosphorochloridofluoridimidic acid, (trimethylsilyl)-, 1-methylethyl ester (9CI) (CA INDEX NAME)

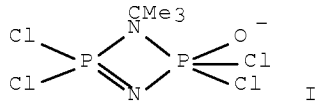


RN 184352-07-6 HCAPLUS
CN Phosphorochloridofluoridimidic acid, (trimethylsilyl)-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



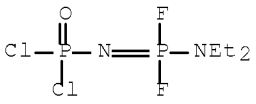
CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 184352-03-2P 184352-05-4P
184352-07-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of trimethylsilyl chloro(fluoro)imidophosphates by oxidative chlorination of bis(trimethylsilyl) fluoroamidophosphites)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L26 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:575453 HCAPLUS Full-text
DOCUMENT NUMBER: 123:169731
ORIGINAL REFERENCE NO.: 123:30315a,30318a
TITLE: Fluoridolysis of N-phosphoryl phosphazenes
AUTHOR(S): Riesel, L.; Loewe, C.; Pauli, J.
CORPORATE SOURCE: Fachber. Chem., Humboldt-Univ., Berlin, Germany
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1995), 621(5), 865-70
CODEN: ZAACAB; ISSN: 0044-2313
PUBLISHER: Barth
DOCUMENT TYPE: Journal
LANGUAGE: German
GI

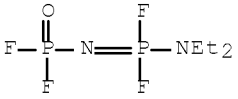


I

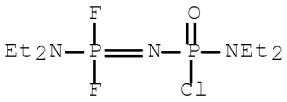
AB In the reaction of the N-phosphoryl phosphazenes X3P:NP(Y)X2 (X = Cl, PhO, Et2N, CF3CF3CH2O, PrS, Ph; Y = O, S) with Et3N·n-HF (n ≈ 3 or 0.6) fluoro derivs. of N-phosphoryl phosphazenes as well as N-phosphorylated imidotetrafluorophosphates [F4P:NP(Y)Cl2]- (Y = O, S), and imidopentafluorophosphates, [F5PNP(Y)X2]2- or [F5PNHP(O)X2]-, are formed. T-BuNHPCl2:NPOCl2 reacts in acetonitrile with Et3N or i-Pr2EtN to form a product, representing probably the diazadiphosphetine I. T-BuNHPCl2 = N-POCl2 reacts in acetonitrile with Et3N or i-Pr2EtN to form a product, representing probably the diazadiphosphetine [t-BuN-PCl2 = N-P(O-)Cl2]- (5b).
IT 80156-08-7P 166832-15-1P
166832-16-2P 166832-19-5P 166832-27-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluoridolysis of N-phosphoryl phosphazenes)
RN 80156-08-7 HCAPLUS
CN Phosphoramidic dichloride, [(diethylamino)difluorophosphoranylidene]- (9CI) (CA INDEX NAME)



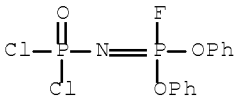
RN 166832-15-1 HCAPLUS
CN Phosphoramidic difluoride, [(diethylamino)difluorophosphoranylidene]- (9CI) (CA INDEX NAME)



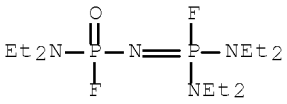
RN 166832-16-2 HCAPLUS
CN Phosphoramidimidic difluoride, N'-[chloro(diethylamino)phosphinyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 166832-19-5 HCAPLUS
CN Phosphorofluoridimidic acid, (dichlorophosphinyl)-, diphenyl ester (9CI) (CA INDEX NAME)



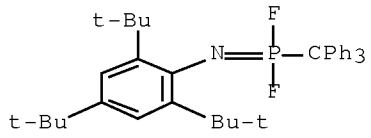
RN 166832-27-5 HCAPLUS
CN Phosphorodiamidic fluoride, [bis(diethylamino)fluorophosphoranylidene]diethyl- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)

IT 16993-69-4P 25518-86-9P 80156-08-7P 166832-10-6P
166832-11-7P 166832-12-8P 166832-13-9P 166832-14-0P
166832-15-1P 166832-16-2P 166832-17-3P
166832-18-4P 166832-19-5P 166832-20-8P 166832-21-9P
166832-22-0P 166832-23-1P 166832-24-2P 166832-25-3P
166832-26-4P 166832-27-5P 166832-29-7P 166832-30-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluoridolysis of N-phosphoryl phosphazenes)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

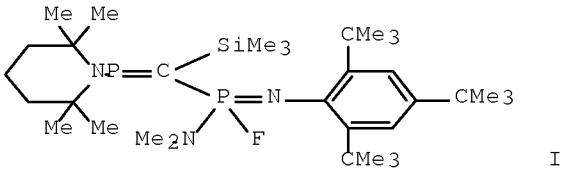
L26 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:400249 HCAPLUS Full-text
DOCUMENT NUMBER: 122:265509
ORIGINAL REFERENCE NO.: 122:48481a,48484a
TITLE: Reaction of Mes*NPCl with triphenylcarbenium tetrafluoroborate
AUTHOR(S): Burford, Neil; Clyburne, Jason A. C.; Bakshi, Pradip K.; Cameron, T. Stanley
CORPORATE SOURCE: Dep. Chem., Dalhousie Univ., Halifax, NS, B3H 4J3, Can.
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1994), 93-94(1-4), 379-80
CODEN: PSSLEC; ISSN: 1042-6507
PUBLISHER: Gordon & Breach
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:265509
AB Reaction of RN:PCl [R = 2,4,6-(Me3C)3C6H2] with triphenylcarbenium salts (BF4 or PF6) produces a difluorphosphine, RN(CPh3)PF2, and not the expected iminophospnenium cation. This compound then undergoes an Arbusov-type rearrangement to generate a difluoroiminophosphorane, RN:PF2CPh3 (I). I was characterized by x-ray crystallog.
IT 162519-87-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(reaction of [tri(tert-butyl)phenyl]iminophosphine chloride with triphenylcarbenium tetrafluoroborate to give difluoroiminophosphorane)
RN 162519-87-1 HCAPLUS
CN Benzenamine, N-[difluoro(triphenylmethyl)phosphoranylidene]-2,4,6-tris(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 162519-87-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(reaction of [tri(tert-butyl)phenyl]iminophosphine chloride with triphenylcarbenium tetrafluoroborate to give difluoroiminophosphorane)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L26 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:206310 HCAPLUS Full-text
DOCUMENT NUMBER: 122:81519
ORIGINAL REFERENCE NO.: 122:15491a,15494a
TITLE: Reactions of stable (phosphino)(silyl)carbenes with iminophosphines [(dialkylamino)(2,2,6,6-tetramethylpiperidino)phosphino](trimethylsilyl)carbenes react with [(2,4,6-tri-tert-butylphenyl)imino]phosphines bearing different substituents at P to give methylenephosphineiminophosphoranes, e.g., I.
AUTHOR(S): Romanenko, Vadim; Gudima, Andrei O.; Chernega, Alexandre N.; Sotiropoulos, Jean-Marc; Alcaraz, Gilles; Bertrand, Guy
CORPORATE SOURCE: Inst. Org. Chem., Kiev, 253660, Ukraine
SOURCE: Bulletin de la Societe Chimique de France (1994), 131(7), 748-53
CODEN: BSCFAS; ISSN: 0037-8968
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



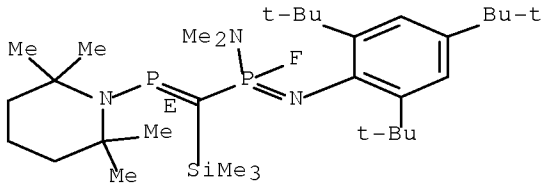
I

AB [(Dialkylamino)(2,2,6,6-tetramethylpiperidino)phosphino](trimethylsilyl)carbenes react with [(2,4,6-tri-tert-butylphenyl)imino]phosphines bearing different substituents at P to give methylenephosphineiminophosphoranes, e.g., I. With P-chloro and P-bromo iminophosphines, small amts. of the isomeric methylenephosphorane-iminophosphines were also obtained. [Bis(dicyclohexylamino)phosphino]trimethylsilyldiazomethane reacts with iodo[(2,4,6-tri-tert-butylphenyl)imino]phosphine to give a triazaphosphole. These results demonstrate the carbene behavior of phosphino(silyl)carbenes and bring further evidence of the synthetic importance of stable carbenes. The crystal structure of I was determined

IT 160464-17-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; reactions of stable (phosphino)(silyl)carbenes with iminophosphines)

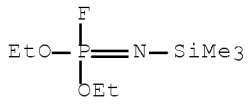
RN 160464-17-5 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-dimethyl-P-[[(2,2,6,6-tetramethyl-1-piperidinyl)phosphinidene](trimethylsilyl)methyl]-N'-[2,4,6-tris(1,1-dimethylethyl)phenyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



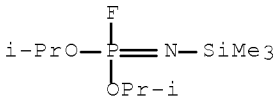
CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 160464-17-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; reactions of stable (phosphino)(silyl)carbenes with iminophosphines)
OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L26 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:298750 HCAPLUS Full-text
DOCUMENT NUMBER: 120:298750
ORIGINAL REFERENCE NO.: 120:52657a,52660a
TITLE: Fluorination of phosphorus(3+) derivatives by xenon difluoride
AUTHOR(S): Lermontov, S. A.; Popov, A. V.; Zavorin, S. I.; Sukhojenko, I. I.; Kuryleva, N. V.; Martynov, I. V.; Zefirov, N. S.; Stang, P.
CORPORATE SOURCE: Inst. Physiol. Active Compds., Chernogolovka, 142432, Russia
SOURCE: Journal of Fluorine Chemistry (1994), 66(3), 233-5
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:298750
AB Xenon difluoride, XeF2, effectively fluorinates various phosphorus acid derivs. as well as hydrophosphoryl compds. Arbuzov rearrangement is followed by iso-Bu → tert-Bu isomerization in the case of iso-BuOPF2.
IT 80156-06-5P 155170-13-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by oxidative fluorination of phosphite derivative with xenon difluoride)
RN 80156-06-5 HCAPLUS
CN Phosphorofluoridimidic acid, (trimethylsilyl)-, diethyl ester (9CI) (CA INDEX NAME)



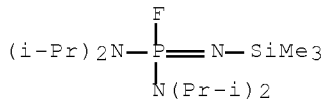
RN 155170-13-1 HCAPLUS
CN Phosphonimidic acid, P-fluoro-N-(trimethylsilyl)-,

bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



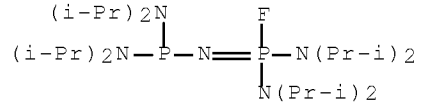
CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 754-24-5P 1135-98-4P, Diphenylfluorophosphine oxide 5954-50-7P, Dimethyl fluorophosphate 71181-74-3P 80156-06-5P 155170-13-1P 155170-14-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by oxidative fluorination of phosphite derivative with xenon difluoride)
OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L26 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:217842 HCAPLUS Full-text
DOCUMENT NUMBER: 120:217842
ORIGINAL REFERENCE NO.: 120:38697a,38700a
TITLE: Reaction of fluorophosphines with silylazides
AUTHOR(S): Riesel, L.; Friebe, R.; Sturm, D.
CORPORATE SOURCE: Fachber. Chem., Humboldt-Univ., Berlin, Germany
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1993), 619(10), 1685-8
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 120:217842
AB The fluorophosphines Ph2PF (1), PhOPF2 (2), C5H10NPF2 (3), (Et2N)PF2 (4), and (Et2N)2PF (5) react with Me3SiN3 via azidophosphines R3-nP(N3)n to give oligo- and polyphosphazenes, (RR'P = N)n. [(Me2CH)2N]2PF (6), however, is oxidized by Me3SiN3 yielding the N-silylated phosphazene [(Me2CH)2N]2PF:NSiMe3 (7). Me3CPh2SiN3 is considerably less reactive. In contrast to Me3SiN3 it even oxidizes 5 and 1 forming (Et2N)2FP:NSiPh2CMe3 (10) and Ph2FP:NSiPh2CMe3, resp.
IT 153982-94-6P 153982-95-7P 153982-96-8P 153982-97-9P 153982-99-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 153982-94-6 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetrakis(1-methylethyl)-N''-(trimethylsilyl)- (9CI) (CA INDEX NAME)

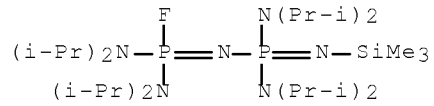


RN 153982-95-7 HCAPLUS
CN Phosphorodiamidimidic fluoride, N''-[bis[bis(1-methylethyl)amino]phosphino]-N,N,N',N'-tetrakis(1-

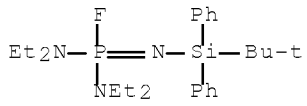
methylethyl)- (9CI) (CA INDEX NAME)



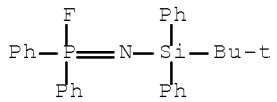
RN 153982-96-8 HCAPLUS
CN Phosphorodiamidimidic fluoride, N''-[P,P-bis[bis(1-methylethyl)amino]-N-(trimethylsilyl)phosphinimyl]-N,N,N',N'-tetrakis(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 153982-97-9 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetraethyl-N''-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)



RN 153982-99-1 HCAPLUS
CN Phosphinimidic fluoride, N-[(1,1-dimethylethyl)diphenylsilyl]-P,P-diphenyl- (9CI) (CA INDEX NAME)



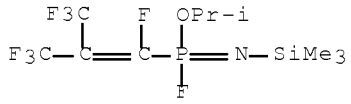
CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 1110-78-7P 28212-47-7P, Poly[nitrilo(diphenylphosphoranylidyne)] 94721-86-5P 138658-75-0P 153982-94-6P 153982-95-7P 153982-96-8P 153982-97-9P 153982-99-1P 153986-43-7P 153986-44-8P 153986-45-9P 153986-46-0P 153986-47-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L26 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1991:514633 HCAPLUS Full-text
DOCUMENT NUMBER: 115:114633
ORIGINAL REFERENCE NO.: 115:19665a,19668a
TITLE: Reaction of perfluoroisobutylene and perfluoropropylene with N-silylamidophosphites
AUTHOR(S): Lermontov, S. A.; Velikokhat'ko, T. N.; Martynov, I. V.
CORPORATE SOURCE: Inst. Fiziol. Akt. Veshchestv., Chernogolovka, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1991), (5), 1204-7
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 115:114633

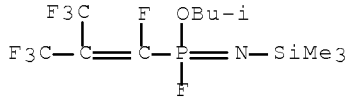
AB Reaction of CF2:C(CF3)2 with RR1PNR2(SiMe3) (R = R1 = EtO, R = Me2CHO, Me2CHCH2O, R1 = F, R2 = SiMe; R = R1 = EtO, R2 = CMe3; R = Me2CHCH2O, R1 = F, R2 = CMe3) at -50° to -70° gave 50-70% RR1P(:NSiMe3)CF:C(CF3)2. Reaction of RR1PN(SiMe3)2 (R = Me, R1 = F; R = R1 = EtO) with CF2:CFCF3 in an autoclave at 70° gave RR1P(:NSiMe3)CF:CFCF3. A mechanism is proposed.

IT 135764-40-8P 135764-41-9P
135764-42-0P 135764-45-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

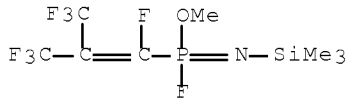
RN 135764-40-8 HCAPLUS
CN Phosphonofluoridimidic acid, P-[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-propen-1-yl]-N-(trimethylsilyl)-, 1-methylethyl ester (CA INDEX NAME)



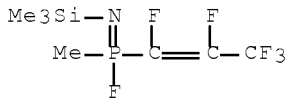
RN 135764-41-9 HCAPLUS
CN Phosphonofluoridimidic acid, P-[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-propen-1-yl]-N-(trimethylsilyl)-, 2-methylpropyl ester (CA INDEX NAME)



RN 135764-42-0 HCAPLUS
CN Phosphonofluoridimidic acid, P-[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-propen-1-yl]-N-(trimethylsilyl)-, methyl ester (CA INDEX NAME)



RN 135764-45-3 HCAPLUS
CN Phosphinimidic fluoride, P-methyl-P-(1,2,3,3,3-pentafluoro-1-propenyl)-N-(trimethylsilyl)- (9CI) (CA INDEX NAME)

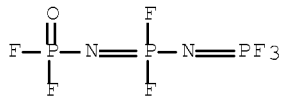


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 135764-39-5P 135764-40-8P 135764-41-9P
135764-42-0P 135764-44-2P 135764-45-3P
135764-46-4P 135764-47-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:145948 HCAPLUS Full-text
DOCUMENT NUMBER: 112:145948
ORIGINAL REFERENCE NO.: 112:24519a,24522a
TITLE: Chemical bonding in phosphonitrilic systems - comparison of the electronic structures of phosphonitrile fluoride cyclic trimer, phosphonitrile fluoride cyclic tetramer, and phosphorus nitride oxyfluoride ((F2PN)3, (F2PN)4, and OP(F2)NP(F2)NPF3)
AUTHOR(S): Ferris, Kim F.; Duke, C. B.
CORPORATE SOURCE: Pacific Northwest Lab., Richland, WA, 99352, USA
SOURCE: International Journal of Quantum Chemistry, Quantum Chemistry Symposium (1989), 23, 397-407
CODEN: IJQSDI; ISSN: 0161-3642
DOCUMENT TYPE: Journal
LANGUAGE: English

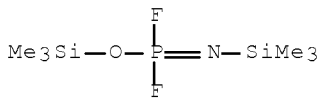
AB The electronic structure of phosphonitrilic systems contain both π' (in plane) and π (out-of-plane) bonding systems. Earlier work in this laboratory has indicated that the d-orbital involvement in these systems affects primarily the electronic structure, and is modulated by ligand electronegativity. Ab initio MO calcns. were performed on a series of small phosphazene mols. [(F2PN)3, (F2PN)4, and OP(F2)NP(F2)NPF3] to elucidate the electronic and mol. structure of these mols. as models for polymeric systems. The chemical bonding and charge distribution in the phosphonitrilic trimers, tetramers, and these small fragments are highly polarized, primarily through the π and π' bonding networks. Our results indicate that while the majority of the electronic aspects of OP(F2)NP(F2)NPF3 can be described by analogies to (F2PN)3 and (F2PN)4, major geometric differences such as bond alternation are evident. The opening of the P-N-P bond angles in the linear fragment results in reduced overlap over multiple centers, promoting "islands of delocalization" first proposed by M. J. S. Dewar, et al., (1960).

IT 126050-28-0
RL: PRP (Properties)
(electronic structure and mol. structure of, ab-initio MO calcns. of)
RN 126050-28-0 HCAPLUS
CN Phosphorimidic trifluoride, [N-(difluorophosphinyl)-P,P-difluorophosphinimyl]- (9CI) (CA INDEX NAME)



CC 65-5 (General Physical Chemistry)
IT 14700-00-6 15599-91-4 126050-28-0
RL: PRP (Properties)
(electronic structure and mol. structure of, ab-initio MO calcns. of)
OS.CITING REF COUNT: 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)

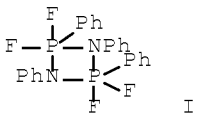
L26 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:77366 HCAPLUS Full-text
DOCUMENT NUMBER: 112:77366
ORIGINAL REFERENCE NO.: 112:13231a,13234a
TITLE: Oxidation of bis(trimethylsilyl)amidodifluorophosphite
AUTHOR(S): Lermontov, S. A.; Sukhova, N. V.; Martynov, I. V.
CORPORATE SOURCE: Inst. Fiziol. Akt. Veshchestv, Chernogolovka, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1989), (6), 1426-8
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 112:77366
AB Reaction of F2PN(SiMe3)2 with Me3COCl in pentane gave nearly equivalent amts. of Me3SiOPF2:NSiMe3 and F2P(O)NHSiMe3.
IT 66416-57-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 66416-57-7 HCAPLUS
CN Phosphorodifluoridimidic acid, (trimethylsilyl)-, trimethylsilyl ester (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 25313-69-3P 66416-57-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1988:631271 HCAPLUS Full-text
DOCUMENT NUMBER: 109:231271
ORIGINAL REFERENCE NO.: 109:38261a,38264a
TITLE: On the reaction of phosphorus(III) fluorides with phenyl azide
AUTHOR(S): Singer, R. J.; Storzer, W.; Schmutzler, R.
CORPORATE SOURCE: Dep. Chem., Univ. Technol., Loughborough/Leics., UK
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1987), 555, 154-60
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 109:231271
GI

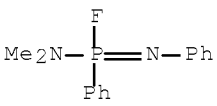


I

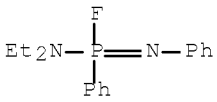
AB The Staudinger reaction of RR1PF (R = R1 = CMe3, Me2N, EtO; R = CMe3, R1 = F; R = Et, R1 = Et2N; R = Ph, R1 = Me2N, Et2N; R = Me2N, Et2N, R1 = F) with PhN3 gave 68-89% RR1P:NPh, whereas the reaction of PhPF2 with PhN3 gave 90% diazadiphosphetidine I.

IT 109659-53-2P 109659-57-6P
109659-74-7P 109659-76-9P 109678-04-8P
117556-00-0P 117556-01-1P 117556-02-2P
117556-03-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

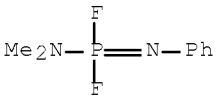
RN 109659-53-2 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-dimethyl-N',P-diphenyl- (9CI) (CA INDEX NAME)



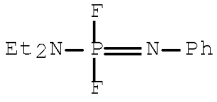
RN 109659-57-6 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-diethyl-N',P-diphenyl- (9CI) (CA INDEX NAME)



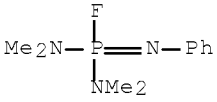
RN 109659-74-7 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-dimethyl-N'-phenyl- (CA INDEX NAME)



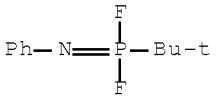
RN 109659-76-9 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-phenyl- (CA INDEX NAME)



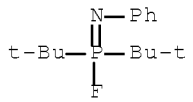
RN 109678-04-8 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetramethyl-N''-phenyl- (9CI) (CA INDEX NAME)



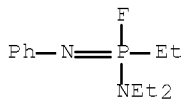
RN 117556-00-0 HCAPLUS
CN Phosphonimidic difluoride, P-(1,1-dimethylethyl)-N-phenyl- (CA INDEX NAME)



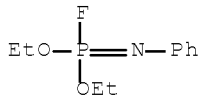
RN 117556-01-1 HCAPLUS
CN Phosphinimidic fluoride, P,P-bis(1,1-dimethylethyl)-N-phenyl- (9CI) (CA INDEX NAME)



RN 117556-02-2 HCAPLUS
CN Phosphonamidimidic fluoride, N,N,P-triethyl-N'-phenyl- (9CI) (CA INDEX NAME)



RN 117556-03-3 HCAPLUS
CN Phosphorofluoridimidic acid, phenyl-, diethyl ester (9CI) (CA INDEX NAME)



CC 29-14 (Organometallic and Organometalloidal Compounds)
IT 51907-85-8P 109659-53-2P 109659-57-6P
109659-74-7P 109659-76-9P 109678-04-8P
117556-00-0P 117556-01-1P 117556-02-2P
117556-03-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1988:6083 HCAPLUS Full-text
DOCUMENT NUMBER: 108:6083
ORIGINAL REFERENCE NO.: 108:1159a,1162a
TITLE: Synthesis of fluoro-λ5-monophosphazenes and fluoro-1,3-diaza-2λ5,4λ5-diphosphetidines by means of the Staudinger reaction
AUTHOR(S): Riesel, L.; Sturm, D.; Nagel, A.; Taudien, S.; Beuster, A.; Karwatzki, A.
CORPORATE SOURCE: Sekt. Chem., Humboldt-Univ., Berlin, DDR-1040, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1986), 542, 157-66
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 108:6083

AB Thirty-five tetrafluoro- and 2 difluorodiazadiphosphetidines as well as 4 difluoro- and 30 monofluoro-λ5-monophosphazenes were prepared by the Staudinger reaction between tervalent phosphorus fluorides, RnPF3-n (n = 1, 2; R = morpholino, piperidino, alkyl, (un)substituted aryl) and Ph azides, XC6H4N3 (X = H, 4-Me, 4-Cl, 4-Br, 4-NO2, 3-NO2). PF3 does not react with phenyl azide. The influence of substituents on the structure of the reaction products is discussed. From kinetic measurements the consts. σPI of the substituents piperidino, morpholino, and RPhN (R = Me, Et, Bu) were determined

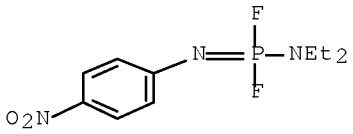
IT 86601-02-7P 109659-44-1P
109659-45-2P 109659-46-3P 109659-47-4P
109659-48-5P 109659-49-6P 109659-50-9P
109659-51-0P 109659-52-1P 109659-53-2P
109659-54-3P 109659-55-4P 109659-56-5P
109659-57-6P 109659-58-7P 109659-59-8P
109659-60-1P 109659-61-2P 109659-62-3P
109659-63-4P 109659-64-5P 109659-65-6P
109659-66-7P 109659-67-8P 109659-68-9P
109659-69-0P 109659-70-3P 109659-71-4P
109659-72-5P 109659-73-6P 109678-04-8P
109678-05-9P 109678-06-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 86601-02-7 HCAPLUS

CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetraethyl-N''-phenyl- (9CI) (CA INDEX NAME)

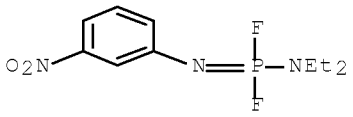
RN 109659-44-1 HCAPLUS

CN Phosphoramidimidic difluoride, N,N-diethyl-N'-(4-nitrophenyl)- (CA INDEX NAME)

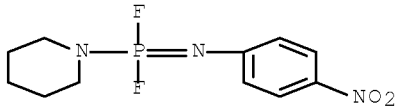


RN 109659-45-2 HCAPLUS

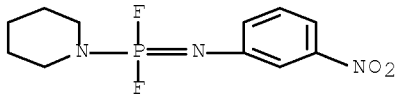
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-(3-nitrophenyl)- (CA INDEX NAME)



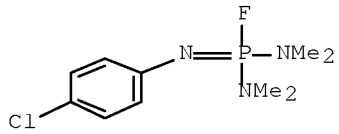
RN 109659-46-3 HCAPLUS
CN Phosphonimidic difluoride, N-(4-nitrophenyl)-P-1-piperidinyl- (CA INDEX NAME)



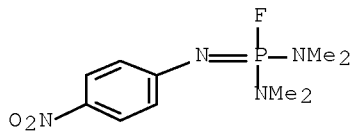
RN 109659-47-4 HCAPLUS
CN Phosphonimidic difluoride, N-(3-nitrophenyl)-P-1-piperidinyl- (CA INDEX NAME)



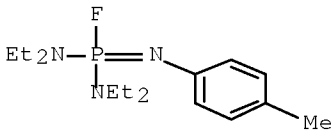
RN 109659-48-5 HCAPLUS
CN Phosphorodiamidimidic fluoride, N''-(4-chlorophenyl)-N,N,N',N'-tetramethyl- (9CI) (CA INDEX NAME)



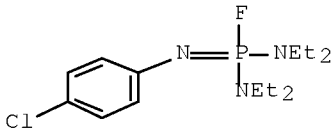
RN 109659-49-6 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetramethyl-N''-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



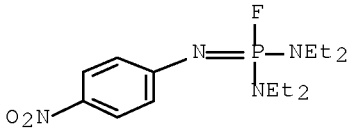
RN 109659-50-9 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetraethyl-N''-(4-methylphenyl)- (9CI) (CA INDEX NAME)



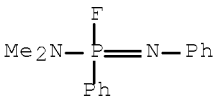
RN 109659-51-0 HCAPLUS
CN Phosphorodiamidimidic fluoride,
N,N,N',N'-tetraethyl-N''-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



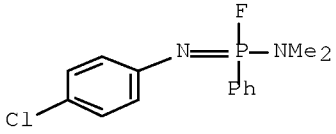
RN 109659-52-1 HCAPLUS
CN Phosphorodiamidimidic fluoride,
N,N,N',N'-tetraethyl-N''-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



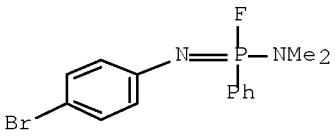
RN 109659-53-2 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-dimethyl-N',P-diphenyl- (9CI) (CA INDEX NAME)



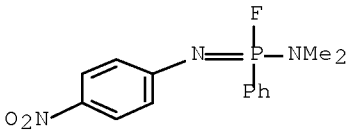
RN 109659-54-3 HCAPLUS
CN Phosphonamidimidic fluoride,
N'-(4-chlorophenyl)-N,N-dimethyl-P-phenyl- (9CI) (CA INDEX NAME)



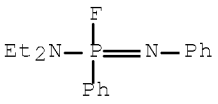
RN 109659-55-4 HCAPLUS
CN Phosphonamidimidic fluoride,
N'-(4-bromophenyl)-N,N-dimethyl-P-phenyl- (9CI) (CA INDEX NAME)



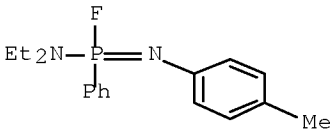
RN 109659-56-5 HCAPLUS
CN Phosphonamidimidic fluoride,
N,N-dimethyl-N'-(4-nitrophenyl)-P-phenyl- (9CI) (CA INDEX NAME)



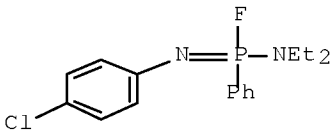
RN 109659-57-6 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-diethyl-N',P-diphenyl- (9CI) (CA INDEX NAME)



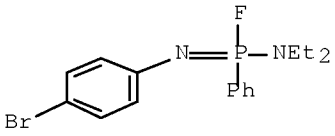
RN 109659-58-7 HCAPLUS
CN Phosphonamidimidic fluoride,
N,N-diethyl-N'-(4-methylphenyl)-P-phenyl- (9CI) (CA INDEX NAME)



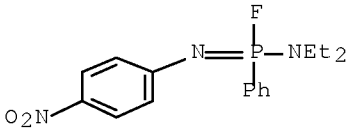
RN 109659-59-8 HCAPLUS
CN Phosphonamidimidic fluoride,
N'-(4-chlorophenyl)-N,N-diethyl-P-phenyl- (9CI) (CA INDEX NAME)



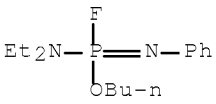
RN 109659-60-1 HCAPLUS
CN Phosphonamidimidic fluoride,
N'-(4-bromophenyl)-N,N-diethyl-P-phenyl- (9CI) (CA INDEX NAME)



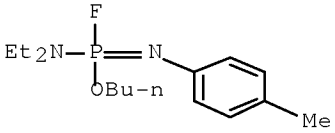
RN 109659-61-2 HCAPLUS
CN Phosphonamidimidic fluoride,
N,N-diethyl-N'-(4-nitrophenyl)-P-phenyl- (9CI) (CA INDEX NAME)



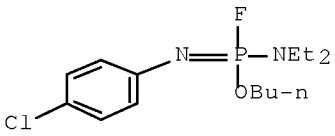
RN 109659-62-3 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-phenyl-, butyl ester
(9CI) (CA INDEX NAME)



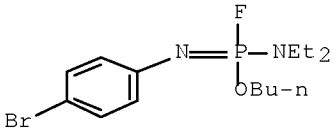
RN 109659-63-4 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-methylphenyl)-,
butyl ester (9CI) (CA INDEX NAME)



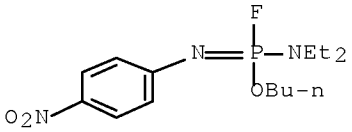
RN 109659-64-5 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-chlorophenyl)-N,N-diethyl-, butyl ester (9CI) (CA INDEX NAME)



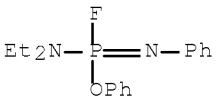
RN 109659-65-6 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-bromophenyl)-N,N-diethyl-, butyl ester (9CI) (CA INDEX NAME)



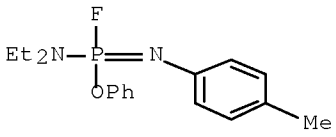
RN 109659-66-7 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-nitrophenyl)-, butyl ester (9CI) (CA INDEX NAME)



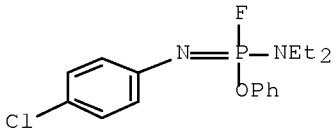
RN 109659-67-8 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-phenyl-, phenyl ester (9CI) (CA INDEX NAME)



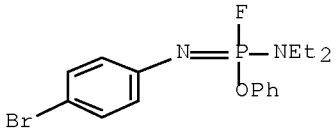
RN 109659-68-9 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-methylphenyl)-, phenyl ester (9CI) (CA INDEX NAME)



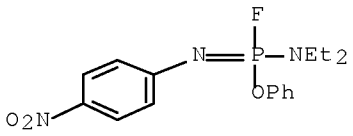
RN 109659-69-0 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-chlorophenyl)-N,N-diethyl-, phenyl ester (9CI) (CA INDEX NAME)



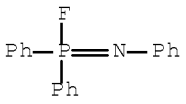
RN 109659-70-3 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-bromophenyl)-N,N-diethyl-, phenyl ester (9CI) (CA INDEX NAME)



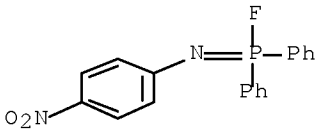
RN 109659-71-4 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-nitrophenyl)-, phenyl ester (9CI) (CA INDEX NAME)



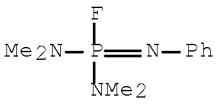
RN 109659-72-5 HCAPLUS
CN Phosphinimidic fluoride, triphenyl- (9CI) (CA INDEX NAME)



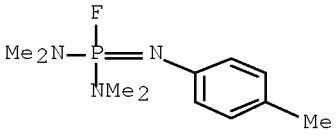
RN 109659-73-6 HCAPLUS
CN Phosphinimidic fluoride, N-(4-nitrophenyl)-P,P-diphenyl- (9CI) (CA INDEX NAME)



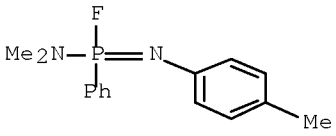
RN 109678-04-8 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetramethyl-N''-phenyl- (9CI) (CA INDEX NAME)



RN 109678-05-9 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetramethyl-N''-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 109678-06-0 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-dimethyl-N'-(4-methylphenyl)-P-phenyl- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22
IT 657-97-6P 51907-85-8P 67374-25-8P 86601-02-7P
91675-81-9P 91675-82-0P 91675-83-1P 109659-17-8P
109659-18-9P 109659-19-0P 109659-20-3P 109659-21-4P
109659-22-5P 109659-23-6P 109659-24-7P 109659-25-8P
109659-26-9P 109659-28-1P 109659-29-2P 109659-30-5P
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111767-56-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L26 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:477931 HCAPLUS Full-text
DOCUMENT NUMBER: 107:77931
ORIGINAL REFERENCE NO.: 107:12833a,12836a
TITLE: NMR investigations of fluorodiazadiphosphetidines and fluoro-λ5-monophosphazenes
AUTHOR(S): Riesel, L.; Sturm, D.; Zschunke, A.; Thomas, B.
CORPORATE SOURCE: Sekt. Chem., Humboldt-Univ., Berlin, DDR-1040, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1987), 544, 225-31
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The 19F and 31P NMR data of 37 fluorodiazadiphosphetidines [RR1PFNC6H4X]2 [R = amino, (un)substituted aryl; R1 = F, amino, Ph, OBu, etc.; X = H, Me, halo, NO2, etc.] and 62 fluoro-λ5-monophosphazenes, RR1PF:NC6H4X, are submitted. In the case of tetrafluorodiazadiphosphetidines, [RPF2NC6H4X]2, an intramol. exchange of the F atoms at P is concluded from the NMR data. The influence of the substituents R and X on the NMR parameters is discussed using simple models of mol. structure.
IT 86601-02-7 109659-44-1 109659-45-2
109659-46-3 109659-47-4 109659-48-5
109659-49-6 109659-50-9 109659-51-0
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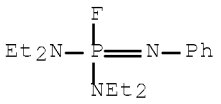
RL: PROC (Process)
(fluorine-19 and phosphorus-31 NMR of)

RN 86601-02-7 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetraethyl-N''-phenyl- (9CI) (CA INDEX NAME)



RN 109659-44-1 HCAPLUS
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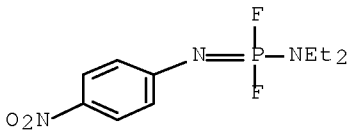
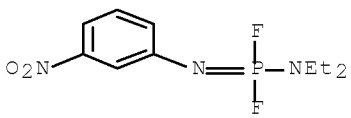


RN 109659-45-2 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-(3-nitrophenyl)- (CA INDEX NAME)



RN 109659-46-3 HCAPLUS
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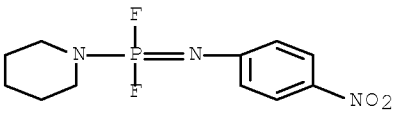

RN 109659-47-4 HCAPLUS
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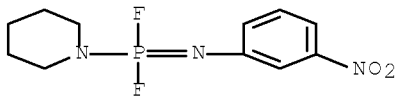
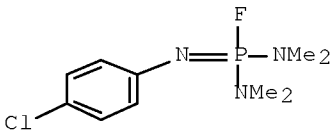
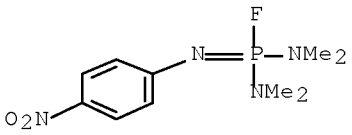


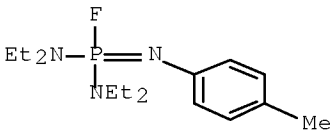
RN 109659-48-5 HCAPLUS
CN Phosphorodiamidimidic fluoride,
N''-(4-chlorophenyl)-N,N,N',N'-tetramethyl- (9CI) (CA INDEX NAME)



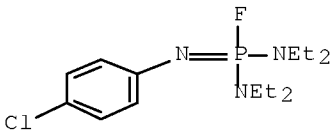
RN 109659-49-6 HCAPLUS
CN Phosphorodiamidimidic fluoride,
N,N,N',N'-tetramethyl-N''-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



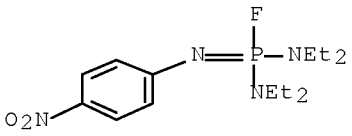
RN 109659-50-9 HCAPLUS
CN Phosphorodiamidimidic fluoride,
N,N,N',N'-tetraethyl-N''-(4-methylphenyl)- (9CI) (CA INDEX NAME)



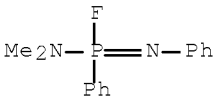
RN 109659-51-0 HCAPLUS
CN Phosphorodiamidimidic fluoride,
N,N,N',N'-tetraethyl-N''-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



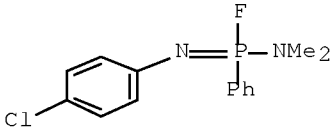
RN 109659-52-1 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetraethyl-N''-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



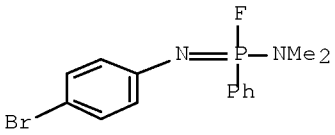
RN 109659-53-2 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-dimethyl-N',P-diphenyl- (9CI) (CA INDEX NAME)



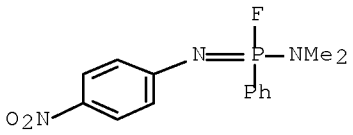
RN 109659-54-3 HCAPLUS
CN Phosphonamidimidic fluoride, N'-(4-chlorophenyl)-N,N-dimethyl-P-phenyl- (9CI) (CA INDEX NAME)



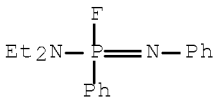
RN 109659-55-4 HCAPLUS
CN Phosphonamidimidic fluoride, N'-(4-bromophenyl)-N,N-dimethyl-P-phenyl- (9CI) (CA INDEX NAME)



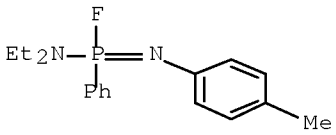
RN 109659-56-5 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-dimethyl-N'-(4-nitrophenyl)-P-phenyl- (9CI) (CA INDEX NAME)



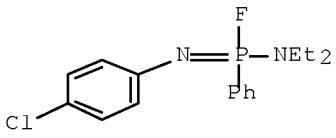
RN 109659-57-6 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-diethyl-N',P-diphenyl- (9CI) (CA INDEX NAME)



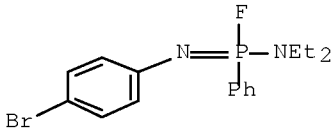
RN 109659-58-7 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-diethyl-N'-(4-methylphenyl)-P-phenyl- (9CI) (CA INDEX NAME)



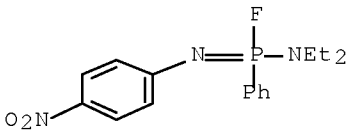
RN 109659-59-8 HCAPLUS
CN Phosphonamidimidic fluoride, N'-(4-chlorophenyl)-N,N-diethyl-P-phenyl- (9CI) (CA INDEX NAME)



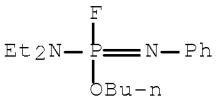
RN 109659-60-1 HCAPLUS
CN Phosphonamidimidic fluoride, N'-(4-bromophenyl)-N,N-diethyl-P-phenyl- (9CI) (CA INDEX NAME)



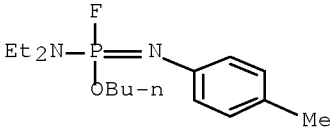
RN 109659-61-2 HCAPLUS
CN Phosphonamidimidic fluoride, N,N-diethyl-N'-(4-nitrophenyl)-P-phenyl- (9CI) (CA INDEX NAME)



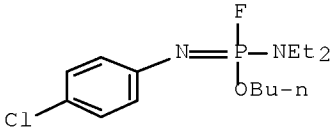
RN 109659-62-3 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-phenyl-, butyl ester (9CI) (CA INDEX NAME)



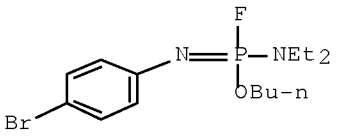
RN 109659-63-4 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-methylphenyl)-, butyl ester (9CI) (CA INDEX NAME)



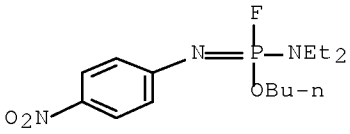
RN 109659-64-5 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-chlorophenyl)-N,N-diethyl-, butyl ester (9CI) (CA INDEX NAME)



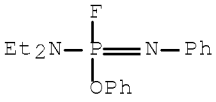
RN 109659-65-6 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-bromophenyl)-N,N-diethyl-, butyl ester (9CI) (CA INDEX NAME)



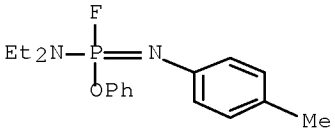
RN 109659-66-7 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-nitrophenyl)-, butyl ester (9CI) (CA INDEX NAME)



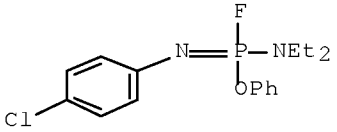
RN 109659-67-8 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-phenyl-, phenyl ester (9CI) (CA INDEX NAME)



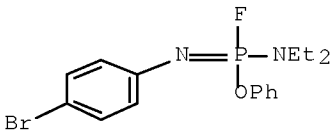
RN 109659-68-9 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-methylphenyl)-, phenyl ester (9CI) (CA INDEX NAME)



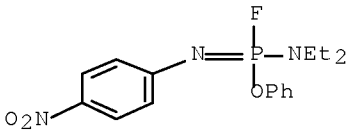
RN 109659-69-0 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-chlorophenyl)-N,N-diethyl-, phenyl ester (9CI) (CA INDEX NAME)



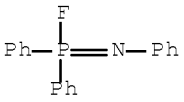
RN 109659-70-3 HCAPLUS
CN Phosphoramidofluoridimidic acid, N'-(4-bromophenyl)-N,N-diethyl-, phenyl ester (9CI) (CA INDEX NAME)



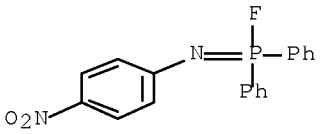
RN 109659-71-4 HCAPLUS
CN Phosphoramidofluoridimidic acid, N,N-diethyl-N'-(4-nitrophenyl)-, phenyl ester (9CI) (CA INDEX NAME)



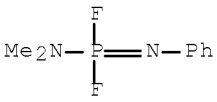
RN 109659-72-5 HCAPLUS
CN Phosphinimidic fluoride, triphenyl- (9CI) (CA INDEX NAME)



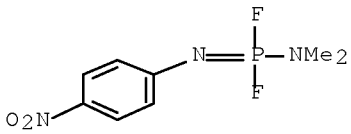
RN 109659-73-6 HCAPLUS
CN Phosphinimidic fluoride, N-(4-nitrophenyl)-P,P-diphenyl- (9CI) (CA INDEX NAME)



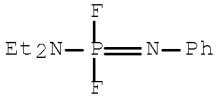
RN 109659-74-7 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-dimethyl-N'-phenyl- (CA INDEX NAME)



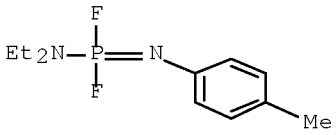
RN 109659-75-8 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-dimethyl-N'-(4-nitrophenyl)- (CA INDEX NAME)



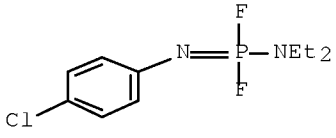
RN 109659-76-9 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-phenyl- (CA INDEX NAME)



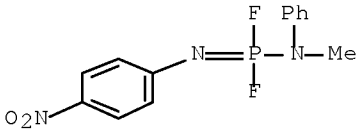
RN 109659-77-0 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-(4-methylphenyl)- (CA INDEX NAME)



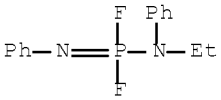
RN 109659-78-1 HCAPLUS
CN Phosphoramidimidic difluoride, N'-(4-chlorophenyl)-N,N-diethyl- (CA INDEX NAME)



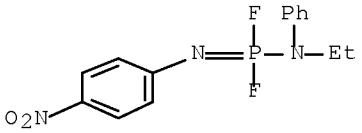
RN 109659-79-2 HCAPLUS
CN Phosphoramidimidic difluoride, N-methyl-N'-(4-nitrophenyl)-N-phenyl- (CA INDEX NAME)



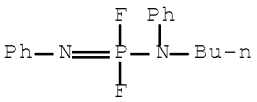
RN 109659-80-5 HCAPLUS
CN Phosphoramidimidic difluoride, N-ethyl-N,N'-diphenyl- (CA INDEX NAME)



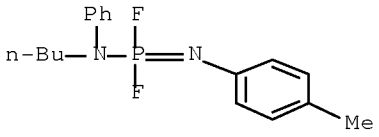
RN 109659-81-6 HCAPLUS
CN Phosphoramidimidic difluoride, N-ethyl-N'-(4-nitrophenyl)-N-phenyl- (CA INDEX NAME)



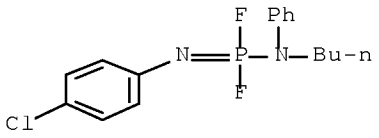
RN 109659-82-7 HCAPLUS
CN Phosphoramidimidic difluoride, N-butyl-N,N'-diphenyl- (CA INDEX NAME)



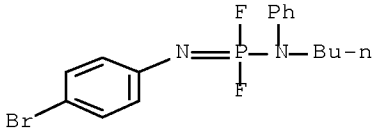
RN 109659-83-8 HCAPLUS
CN Phosphoramidimidic difluoride, N-butyl-N'-(4-methylphenyl)-N-phenyl- (CA INDEX NAME)



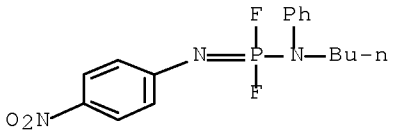
RN 109659-84-9 HCAPLUS
CN Phosphoramidimidic difluoride, N-butyl-N'-(4-chlorophenyl)-N-phenyl- (CA INDEX NAME)



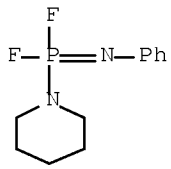
RN 109659-85-0 HCAPLUS
CN Phosphoramidimidic difluoride, N'-(4-bromophenyl)-N-butyl-N-phenyl- (CA INDEX NAME)



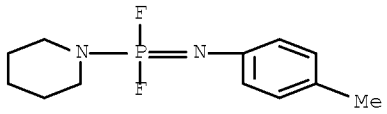
RN 109659-86-1 HCAPLUS
CN Phosphoramidimidic difluoride, N-butyl-N'-(4-nitrophenyl)-N-phenyl- (CA INDEX NAME)



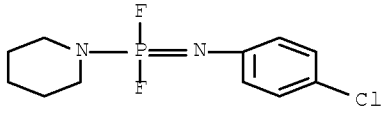
RN 109659-87-2 HCAPLUS
CN Phosphonimidic difluoride, N-phenyl-P-1-piperidinyl- (CA INDEX NAME)



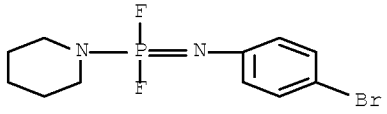
RN 109659-88-3 HCAPLUS
CN Phosphonimidic difluoride, N-(4-methylphenyl)-P-1-piperidinyl- (CA INDEX NAME)



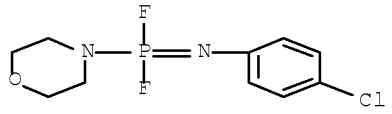
RN 109659-89-4 HCAPLUS
CN Phosphonimidic difluoride, N-(4-chlorophenyl)-P-1-piperidinyl- (CA INDEX NAME)



RN 109659-90-7 HCAPLUS
CN Phosphonimidic difluoride, N-(4-bromophenyl)-P-1-piperidinyl- (CA INDEX NAME)

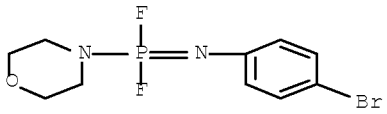


RN 109659-91-8 HCAPLUS
CN Phosphonimidic difluoride, N-(4-chlorophenyl)-P-4-morpholinyl- (CA INDEX NAME)



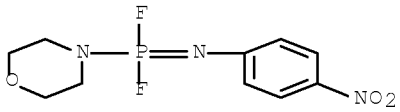
RN 109659-92-9 HCAPLUS

CN Phosphonimidic difluoride, N-(4-bromophenyl)-P-4-morpholinyl- (CA INDEX NAME)



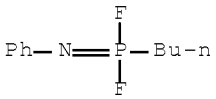
RN 109659-93-0 HCAPLUS

CN Phosphonimidic difluoride, P-4-morpholinyl-N-(4-nitrophenyl)- (CA INDEX NAME)



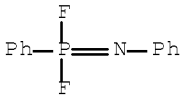
RN 109659-94-1 HCAPLUS

CN Phosphonimidic difluoride, P-butyl-N-phenyl- (CA INDEX NAME)



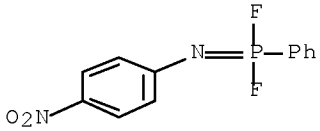
RN 109659-95-2 HCAPLUS

CN Phosphonimidic difluoride, diphenyl- (9CI) (CA INDEX NAME)

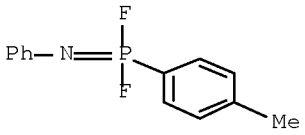


RN 109659-96-3 HCAPLUS

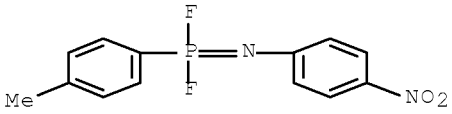
CN Phosphonimidic difluoride, N-(4-nitrophenyl)-P-phenyl- (CA INDEX NAME)



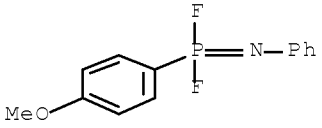
RN 109659-97-4 HCAPLUS
CN Phosphonimidic difluoride, P-(4-methylphenyl)-N-phenyl- (CA INDEX NAME)



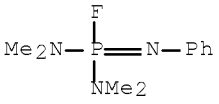
RN 109659-98-5 HCAPLUS
CN Phosphonimidic difluoride, P-(4-methylphenyl)-N-(4-nitrophenyl)- (CA INDEX NAME)



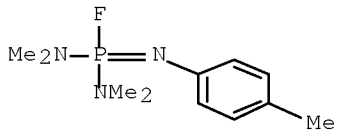
RN 109659-99-6 HCAPLUS
CN Phosphonimidic difluoride, P-(4-methoxyphenyl)-N-phenyl- (CA INDEX NAME)



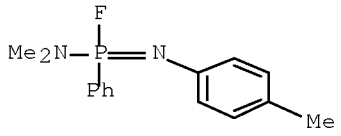
RN 109678-04-8 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetramethyl-N''-phenyl- (9CI) (CA INDEX NAME)



RN 109678-05-9 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetramethyl-N''-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 109678-06-0 HCAPLUS
CN Phosphonamidimidic fluoride,
N,N-dimethyl-N'-(4-methylphenyl)-P-phenyl- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 15199-01-6 67374-25-8 86601-02-7 91675-82-0
91675-83-1 109659-17-8 109659-18-9 109659-19-0 109659-20-3
109659-21-4 109659-22-5 109659-23-6 109659-24-7 109659-25-8
109659-26-9 109659-27-0 109659-28-1 109659-29-2 109659-30-5
109659-31-6 109659-32-7 109659-33-8 109659-34-9 109659-35-0
109659-36-1 109659-37-2 109659-38-3 109659-39-4 109659-40-7
109659-41-8 109659-42-9 109659-43-0 109659-44-1
109659-45-2 109659-46-3 109659-47-4
109659-48-5 109659-49-6 109659-50-9
109659-51-0 109659-52-1 109659-53-2
109659-54-3 109659-55-4 109659-56-5
109659-57-6 109659-58-7 109659-59-8
109659-60-1 109659-61-2 109659-62-3
109659-63-4 109659-64-5 109659-65-6
109659-66-7 109659-67-8 109659-68-9
109659-69-0 109659-70-3 109659-71-4
109659-72-5 109659-73-6 109659-74-7
109659-75-8 109659-76-9 109659-77-0
109659-78-1 109659-79-2 109659-80-5
109659-81-6 109659-82-7 109659-83-8
109659-84-9 109659-85-0 109659-86-1
109659-87-2 109659-88-3 109659-89-4
109659-90-7 109659-91-8 109659-92-9
109659-93-0 109659-94-1 109659-95-2
109659-96-3 109659-97-4 109659-98-5
109659-99-6 109660-00-6 109660-01-7 109678-00-4
109678-01-5 109678-02-6 109678-03-7 109678-04-8
109678-05-9 109678-06-0 109713-73-7
109717-51-3
RL: PROC (Process)
(fluorine-19 and phosphorus-31 NMR of)

L26 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:176476 HCAPLUS Full-text
DOCUMENT NUMBER: 106:176476
ORIGINAL REFERENCE NO.: 106:28649a,28652a
TITLE: N-(Halosilyl)phosphinimines: novel

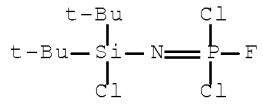
chlorine-fluorine exchange
AUTHOR(S): Kliebisch, U.; Klingebiel, U.
CORPORATE SOURCE: Inst. Anorg. Chemie, Univ. Goettingen, Goettingen, D-3400, Fed. Rep. Ger.
SOURCE: Journal of Organometallic Chemistry (1986), 314(1-2), 33-8
CODEN: JORCAI; ISSN: 0022-328X
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 106:176476

AB (Me3C)2SiFNH2 reacts with PX5 (X = Cl, F) in a molar ratio 2:1 via fluorosilylaminophosphoranes to give fluorosilylphosphinimines (Me3C)2SiFN:PX3 [X = Cl, F (I)]. I is converted to (Me3C)2SiClN:PCl2F (II) in a chloro-fluoro exchange. After the reaction of (Me2CH)2SiFNH2 with PCl5, (Me2CH)2SiClN:PCl2F is isolated. Substitution at the P atom occurs in the reaction of II with alcoholates and silylamines.

2-Silylimino-1,3-diaza-2λ5-phospha-4-silacyclobutanes result from the reaction of II with (LiCMe3)2SiMe2.

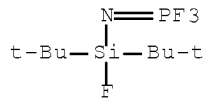
IT 107996-28-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)

RN 107996-28-1 HCAPLUS
CN Phosphorimidic dichloride fluoride, [chlorobis(1,1-dimethylethyl)silyl]- (9CI) (CA INDEX NAME)

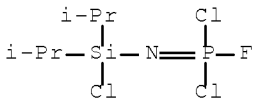


IT 107996-26-9P 107996-29-2P
107996-30-5P 107996-31-6P 107996-32-7P
107996-34-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

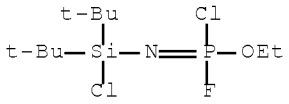
RN 107996-26-9 HCAPLUS
CN Phosphorimidic trifluoride, [bis(1,1-dimethylethyl)fluorosilyl]- (9CI) (CA INDEX NAME)



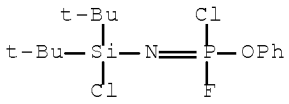
RN 107996-29-2 HCAPLUS
CN Phosphorimidic dichloride fluoride, [chlorobis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



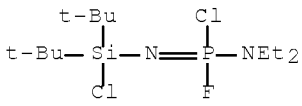
RN 107996-30-5 HCAPLUS
CN Phosphorochloridofluoridimidic acid, [chlorobis(1,1-dimethylethyl)silyl]-, ethyl ester (9CI) (CA INDEX NAME)



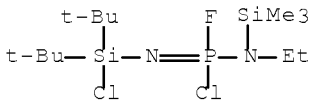
RN 107996-31-6 HCAPLUS
CN Phosphorochloridofluoridimidic acid, [chlorobis(1,1-dimethylethyl)silyl]-, phenyl ester (9CI) (CA INDEX NAME)



RN 107996-32-7 HCAPLUS
CN Phosphoramidimidic chloride fluoride, N'-[chlorobis(1,1-dimethylethyl)silyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

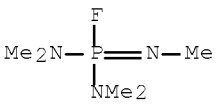


RN 107996-34-9 HCAPLUS
CN Phosphoramidimidic chloride fluoride, N'-[chlorobis(1,1-dimethylethyl)silyl]-N-ethyl-N-(trimethylsilyl)- (9CI) (CA INDEX NAME)

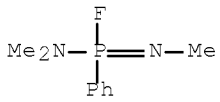


CC 29-6 (Organometallic and Organometalloidal Compounds)
IT 107996-28-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)
IT 107996-26-9P 107996-29-2P
107996-30-5P 107996-31-6P 107996-32-7P
107996-33-8P 107996-34-9P 107996-35-0P 107996-36-1P
107996-37-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

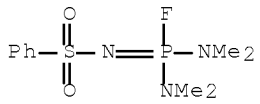
L26 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:609025 HCAPLUS Full-text
DOCUMENT NUMBER: 105:209025
ORIGINAL REFERENCE NO.: 105:33711a,33714a
TITLE: Thermal dealkylation of (alkylamino)fluorophosphonium halides
AUTHOR(S): Marchenko, A. P.; Kudryavtsev, A. A.; Tsymbal, I. F.; Pinchuk, A. M.
CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR
SOURCE: Zhurnal Obshchei Khimii (1985), 55(11), 2627-8
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 105:209025
AB Me2NP+F(NMeR)R1 X- (I; R = Me; R1 = NMe2, Ph; X = Br) were reversibly dealkylated at 290-300° to give Me2NPF(:NR)R1. I (R = SO2Ph, R1 = NMe2, X = Cl) was irreversibly dealkylated at 79° to give (Me2N)2PF:NSO2Ph.
IT 7549-84-0P
RL: PREP (Preparation)
(formation and reaction with benzenesulfonyl chloride)
RN 7549-84-0 HCAPLUS
CN Phosphorodiamidimidic fluoride, pentamethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



IT 105263-83-0P 105263-84-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 105263-83-0 HCAPLUS
CN Phosphonamidimidic fluoride, N,N,N'-trimethyl-P-phenyl- (9CI) (CA INDEX NAME)

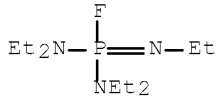


RN 105263-84-1 HCAPLUS
CN Benzenesulfonamide, N-[bis(dimethylamino)fluorophosphinylidene]-
(CA INDEX NAME)



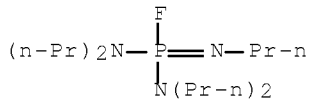
CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 7549-84-0P
RL: PREP (Preparation)
(formation and reaction with benzenesulfonyl chloride)
IT 105263-83-0P 105263-84-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:470842 HCAPLUS Full-text
DOCUMENT NUMBER: 99:70842
ORIGINAL REFERENCE NO.: 99:11011a,11014a
TITLE: Diamidofluorophosphazo compounds
AUTHOR(S): Marchenko, A. P.; Kovenya, V. A.; Pinchuk, A. M.
CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR
SOURCE: Zhurnal Obshchei Khimii (1983), 53(3),
698-9
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 99:70842
AB Fluorination of (R2N)2P(Cl):NR1 [R = R1 = Et, Pr, Bu; R = Et, R1 = Ph; R2N = EtPhN, R1 = Ph; R2N = piperidino, R1 = (CH2)3CH:CH2] with HF gave (R2N)2P(F):NR1.
IT 86600-99-9P 86601-00-5P 86601-01-6P
86601-02-7P 86601-03-8P 86601-04-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 86600-99-9 HCAPLUS
CN Phosphorodiamidimidic fluoride, pentaethyl- (9CI) (CA INDEX NAME)

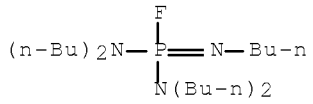


RN 86601-00-5 HCAPLUS

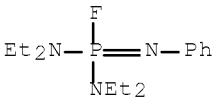
CN Phosphorodiamidimidic fluoride, pentapropyl- (9CI) (CA INDEX NAME)



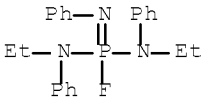
RN 86601-01-6 HCAPLUS
CN Phosphorodiamidimidic fluoride, pentabutyl- (9CI) (CA INDEX NAME)



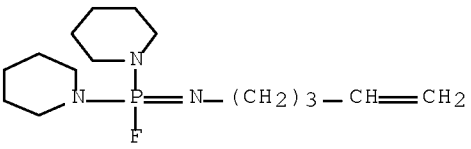
RN 86601-02-7 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N,N',N'-tetraethyl-N''-phenyl- (9CI) (CA INDEX NAME)



RN 86601-03-8 HCAPLUS
CN Phosphorodiamidimidic fluoride, N,N'-diethyl-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)

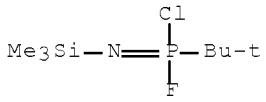


RN 86601-04-9 HCAPLUS
CN Phosphinimidic fluoride, N-4-pentenyl-P,P-di-1-piperidinyl- (9CI) (CA INDEX NAME)

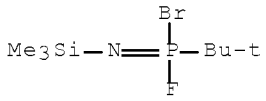


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 86600-99-9P 86601-00-5P 86601-01-6P
86601-02-7P 86601-03-8P 86601-04-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1982:544933 HCAPLUS Full-text
DOCUMENT NUMBER: 97:144933
ORIGINAL REFERENCE NO.: 97:24145a,24148a
TITLE: Phosphazo compounds with different halogens at the phosphorus atom
AUTHOR(S): Gololobov, Yu. G.; Gusar, N. I.; Randina, L. V.
CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR
SOURCE: Zhurnal Obshchei Khimii (1982), 52(6), 1260-5
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 97:144933
AB Reaction of Me3CPR2 (R = Cl, Br, F) with NaN(SiMe3)2 gave R(Me3C)PN(SiMe3)2 which on halogenation gave 38-73% RR1(Me3C)P:NSiMe3 (R1 = Cl, Br, iodo).
IT 83128-25-0P 83128-26-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 83128-25-0 HCAPLUS
CN Phosphonimidic chloride fluoride,
P-(1,1-dimethylethyl)-N-(trimethylsilyl)- (9CI) (CA INDEX NAME)



RN 83128-26-1 HCAPLUS
CN Phosphonimidic bromide fluoride,
P-(1,1-dimethylethyl)-N-(trimethylsilyl)- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 83128-22-7P 83128-23-8P 83128-24-9P 83128-25-0P
83128-26-1P 83128-27-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

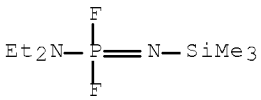
L26 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1982:6805 HCAPLUS Full-text

DOCUMENT NUMBER: 96:6805
ORIGINAL REFERENCE NO.: 96:1239a,1242a
TITLE: Fluorophosphazosilanes
AUTHOR(S): Filonenko, L. P.; Kudryavtsev, A. A.; Pinchuk, A. M.
CORPORATE SOURCE: USSR
SOURCE: Zhurnal Obshchei Khimii (1981), 51(9), 1971-5
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 96:6805

AB The title compds. RnPF3-n:NSiMe3 (I, R = alkoxy, dialkylamino, n = 1, 2) were prepared in 34-62% yields by treating (Me3Si)2NCl with RnPF3-n. Treating Et2NPF2:NSiMe3 (II) with SiCl4 gave 86% Et2NPF2:NSiCl3, whereas use of PCl3 gave 73% Et2NPF2:NPCl2 and use of POCl3 gave 62% Et2NPF2:NPOCl2; addition of HF gave quant. Et2NPF3NHSiMe3.

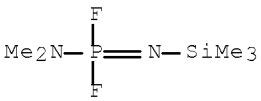
IT 80156-02-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)

RN 80156-02-1 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-(trimethylsilyl)- (CA INDEX NAME)

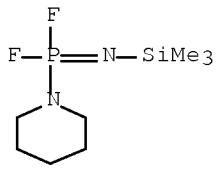


IT 61701-84-6P 80156-03-2P 80156-04-3P
80156-05-4P 80156-06-5P 80156-07-6P
80156-08-7P 80156-09-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

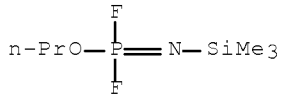
RN 61701-84-6 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-dimethyl-N'-(trimethylsilyl)- (CA INDEX NAME)



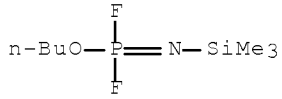
RN 80156-03-2 HCAPLUS
CN Phosphonimidic difluoride, P-1-piperidinyl-N-(trimethylsilyl)- (CA INDEX NAME)



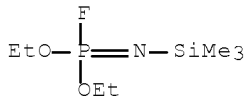
RN 80156-04-3 HCAPLUS
CN Phosphorodifluoridimidic acid, (trimethylsilyl)-, propyl ester (9CI) (CA INDEX NAME)



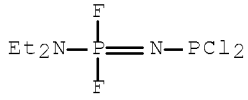
RN 80156-05-4 HCAPLUS
CN Phosphorodifluoridimidic acid, (trimethylsilyl)-, butyl ester (9CI) (CA INDEX NAME)



RN 80156-06-5 HCAPLUS
CN Phosphorofluoridimidic acid, (trimethylsilyl)-, diethyl ester (9CI) (CA INDEX NAME)

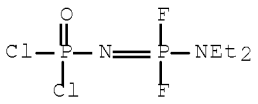


RN 80156-07-6 HCAPLUS
CN Phosphoramidimidic difluoride, N'-(dichlorophosphino)-N,N-diethyl- (CA INDEX NAME)

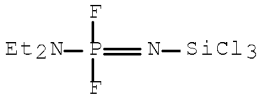


RN 80156-08-7 HCAPLUS

CN Phosphoramidic dichloride, [(diethylamino)difluorophosphoranylidene]- (9CI) (CA INDEX NAME)



RN 80156-09-8 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-diethyl-N'-(trichlorosilyl)- (CA INDEX NAME)



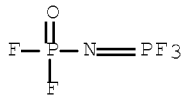
CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 80156-02-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)
IT 61701-84-6P 80156-03-2P 80156-04-3P
80156-05-4P 80156-06-5P 80156-07-6P
80156-08-7P 80156-09-8P 80156-10-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:71918 HCAPLUS Full-text
DOCUMENT NUMBER: 94:71918
ORIGINAL REFERENCE NO.: 94:11619a,11622a
TITLE: Conformational analysis of substituted phosphinylimidophosphoranes [X3PNP(O)X2] and (X3PNPX3)+ for X = hydrogen, fluorine, chlorine, methyl by the PCILO method
AUTHOR(S): Glidewell, Christopher
CORPORATE SOURCE: Chem. Dep., Univ. St. Andrews, St. Andrews/Fife, KY16 9ST, UK
SOURCE: Journal of Molecular Structure (1980), 69, 265-72
CODEN: JMOSB4; ISSN: 0022-2860
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Conformational energy maps were calculated, using the PCILO method, for X3PNP(O)X2 and (X3PNPX3)+ for X = H, F, Cl, CH3 as a function of the PNP angle. In H3PNP(O)H2 the global energy min. corresponds to the eclipsed conformation of the H3P and P(O)H2 fragments for all PNP angles, while in Cl3PNP(O)Cl2, the global min. always has Cl3P and P(O)Cl2 staggered: the global min. in F3PNP(O)F2 corresponds to eclipsed F3P and P(O)F2 fragments at low PNP angles and staggered fragments at high PNP angles: in (CH3)3PNPO(CH3)2 the global min. conformation is very sensitive to ∠PNP. Subordinate energy min. occur for all X3PNP(O)X2 species: in particular, there are two local

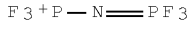
conformational min. for Cl3PNP(O)Cl2 at the optimum value of ∠PNP, and the relative energies of the three stable conformations are in good agreement with those derivable from the 31P NMR spectrum of this compound In (X3PNPX3)+ the global min. is always close to the eclipsed conformation: free rotation of the X3P groups relative to one another is approached in each (X3PNPX3)+ ion as ∠PNP approaches 180°. The conformations of the transition states for the equilibrium between energy min. are reported with their relative energies, for X3PNP(O)X2 (X = H, F, Cl, CH3) and for (Cl3PNPCl3)+.

IT 22474-63-1 76554-10-4
RL: PROC (Process)
(conformational anal. of, by PCILO method)

RN 22474-63-1 HCAPLUS
CN Phosphorimidic trifluoride, (difluorophosphinyl)- (8CI, 9CI) (CA INDEX NAME)

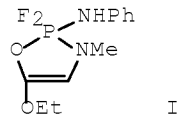


RN 76554-10-4 HCAPLUS
CN Phosphorus(1+), trifluoro(phosphorimidic trifluoridato-N)-, (T-4)- (9CI) (CA INDEX NAME)



CC 65-4 (General Physical Chemistry)
IT 13966-08-0 22474-63-1 34768-11-1 76554-08-0
76554-10-4 76554-11-5 76554-12-6 76554-15-9
RL: PROC (Process)
(conformational anal. of, by PCILO method)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L26 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1980:146680 HCAPLUS Full-text
DOCUMENT NUMBER: 92:146680
ORIGINAL REFERENCE NO.: 92:23841a,23844a
TITLE: Prototropic isomerization of fluorophosphazo compounds to fluorophosphoranes
AUTHOR(S): Nesterova, L. I.; Gololobov, Yu. G.
CORPORATE SOURCE: USSR
SOURCE: Zhurnal Obshchei Khimii (1979), 49(11), 2625-7
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 92:146680
GI



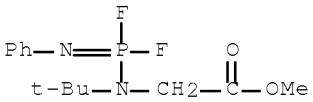
I

AB Treatment of F2PNMeCH2CO2Et with PhN3 in C6H6 at 80° gave 23% oxazaphospholene I. Similar reaction with F2PN(CMe3)CH2CO2Me gave 21% PhN:PF2NRCH2CO2Me (II; R = CMe3). I was formed by isomerization of II (R = Me). When R = CMe3 II could not cyclize under the reaction conditions.

IT 73030-77-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 73030-77-0 HCAPLUS

CN Glycine, N-(1,1-difluoro-N-phenylphosphinimyl)-N-(1,1-dimethylethyl)-, methyl ester (9CI) (CA INDEX NAME)



CC 28-11 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 25

IT 73030-75-8P 73030-77-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

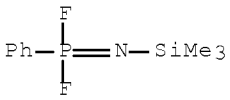
L26 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:459932 HCAPLUS Full-text
DOCUMENT NUMBER: 89:59932
ORIGINAL REFERENCE NO.: 89:9305a,9308a
TITLE: Structural isomerization of (bis(trimethylsilyl)amino)phosphine oxides
AUTHOR(S): Neilson, Robert H.; Jacobs, Richard D.; Scheirman, Russell W.; Wilburn, James C.
CORPORATE SOURCE: Paul M. Gross Chem. Lab., Duke Univ., Durham, NC, USA
SOURCE: Inorganic Chemistry (1978), 17(7), 1880-2
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reactions of lithium bis(trimethylsilyl)amide with phosphoryl chlorides ClP(O)X2 (X = F, Cl, Ph) gave the N-silylated phosphinimines Me3SiN:PX2OSiMe3 rather than the isomeric phosphine oxides (Me2Si)2NP(O)X2. Stereochem. arguments and 13C NMR data provide support for the assignment of the imine structure.

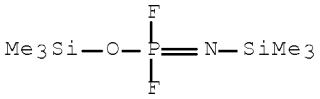
IT 61701-83-5
RL: PRP (Properties)
(NMR of)

RN 61701-83-5 HCAPLUS

CN Phosphonimidic difluoride, P-phenyl-N-(trimethylsilyl)- (CA INDEX NAME)



IT 66416-57-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 66416-57-7 HCAPLUS
CN Phosphorodifluoridimidic acid, (trimethylsilyl)-, trimethylsilyl ester (9CI) (CA INDEX NAME)



CC 29-6 (Organometallic and Organometalloidal Compounds)
IT 61701-83-5
RL: PRP (Properties)
(NMR of)
IT 41309-94-8P 66416-57-7P 66416-58-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

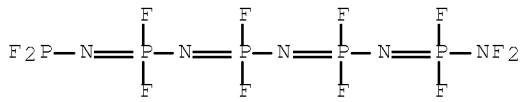
L26 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:501818 HCAPLUS Full-text
DOCUMENT NUMBER: 87:101818
ORIGINAL REFERENCE NO.: 87:16151a
TITLE: Conformational analysis of phosphazenes. A force field for the calculation of the molecular structures of halophosphazenes
AUTHOR(S): Boyd, Richard H.; Kesner, Laya
CORPORATE SOURCE: Dep. Mater. Sci. Eng., Univ. Utah, Salt Lake City, UT, USA
SOURCE: Journal of the American Chemical Society (1977), 99(13), 4248-56
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Phosphazenes (-N:PR2-)n are a series of compds. that include rings of various sizes and conformations and linear high-mol.-weight polymers which the formal valence structure presents the possibility of π-electron delocalization. An attempt was made to see if phosphazene properties could be accounted for in terms of a conventional conformational model in which the mols. are subject to the influences of the energetics of bond twisting, bending, and stretching (and nonbonded interactions), but in which there are not further effects on bonding in various size mols. than from these sources (i.e., the individual bond energies do not depend on the size of the mol.). The geometries, energies, and vibrational frequencies of a number of cyclic perhalophosphazenes were satisfactorily accounted for by such a model. A force field for conformational calcns. on chloro- and fluorophosphazenes is

presented. Important and necessary features of the model include a 2-fold torsional potential with a low barrier (.apprx.1.4 kcal/mol) and a soft bending constant at the PNP valence angle (both absolutely and relative to the NPN angle).

IT 63722-42-9
RL: PRP (Properties)
(conformation of, calcn. of)

RN 63722-42-9 HCAPLUS

CN Phosphoramidimidic difluoride, N-[[[(difluoroamino)difluorophosphoranylidene]amino]difluorophosphoranylidene]-N'-[N-(difluorophosphino)-P,P-difluorophosphinimyl]- (9CI) (CA INDEX NAME)



CC 22-9 (Physical Organic Chemistry)

IT 940-71-6 2950-45-0 13596-41-3 14700-00-6 15599-91-4
63722-41-8 63722-42-9
RL: PRP (Properties)
(conformation of, calcn. of)

OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)

L26 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:406082 HCAPLUS Full-text

DOCUMENT NUMBER: 87:6082

ORIGINAL REFERENCE NO.: 87:989a,992a

TITLE: Reactions of lithium bis(trimethylsilyl) amide with some fluorophosphoranes

AUTHOR(S): Wisian-Neilson, Patty; Neilson, Robert H.; Cowley, Alan H.

CORPORATE SOURCE: Dep. Chem., Duke Univ., Durham, NC, USA

SOURCE: Inorganic Chemistry (1977), 16(6), 1460-3
CODEN: INOCAJ; ISSN: 0020-1669

DOCUMENT TYPE: Journal

LANGUAGE: English

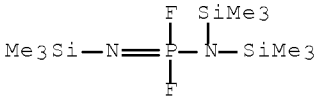
AB The reactions of various fluorophosphoranes with LiN(SiMe3)2 proceeded with elimination of both LiF and Me3SiF to produce N-trimethylsilyl phosphinimines rather than bis(trimethylsilyl)aminophosphoranes. Thus, the reaction with PF5 afforded (Me3Si)2N:PF2NSiMe3 while the substituted fluorophosphoranes RPF4 (R = Ph, NMe2, Me) and Ph2PF3 gave rise to simpler N-trimethylsilylphosphinimines, FPR(R1):NSiMe3 (R = F, R1 = Ph; R = F, R1 = NMe2; R = F, R1 = Me; R = R1 = Ph). Under similar conditions, LiN(SiMe3)2 did not react with (Me2N)2PF3. In the case of Me2PF3 only decomposition products of the expected phosphinimine Me2PF:NSiMe3 were detected. These p-fluoro-N-trimethylsilylphosphinimines undergo thermal decomposition, eliminating Me3SiF and forming cyclic phosphazenes.

IT 58972-02-4P 61701-83-5P 61701-84-6P
61701-85-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

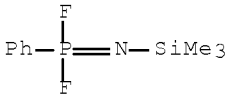
RN 58972-02-4 HCAPLUS

CN Phosphoramidimidic difluoride, tris(trimethylsilyl)- (9CI) (CA

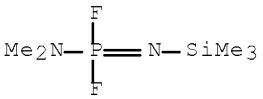
INDEX NAME)



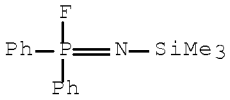
RN 61701-83-5 HCAPLUS
CN Phosphonimidic difluoride, P-phenyl-N-(trimethylsilyl)- (CA INDEX NAME)



RN 61701-84-6 HCAPLUS
CN Phosphoramidimidic difluoride, N,N-dimethyl-N'-(trimethylsilyl)- (CA INDEX NAME)



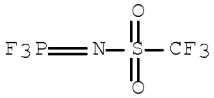
RN 61701-85-7 HCAPLUS
CN Phosphinimidic fluoride, P,P-diphenyl-N-(trimethylsilyl)- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 33310-82-6P 58972-02-4P 61701-83-5P
61701-84-6P 61701-85-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L26 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1976:405796 HCAPLUS Full-text
DOCUMENT NUMBER: 85:5796
ORIGINAL REFERENCE NO.: 85:935a,938a
TITLE: Derivatives of perfluoroalkylsulfonic acids.

II. Oxidative imination of phosphorus(III) compounds by nitrogenous derivatives of trifluoromethanesulfonic acid
AUTHOR(S): Radchenko, O. A.; Nazaretyan, V. P.; Yagupol'skii, L. M.
CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR
SOURCE: Zhurnal Obshchei Khimii (1976), 46(3), 565-8
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The quantitative reaction of F3CSO2N3 with (RO)3P gave F3CSO2N:P(OR)3 (R = Ph, hexyl), with PhPCl2 gave F3CSO2N:PCl2Ph, and with Ph3Sb gave F3CSO2N:SbPh3. Similarly, the reaction of F3CSO2NNaCl with PX3 gave, resp., 89% and 31% F3CSO2N:PX3 (X = Cl, Br). F3CSO2NNaCl and F3PCl2 gave 51% F3CSO2N:PF3.
IT 59360-43-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 59360-43-9 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-(trifluorophosphoranylidene)- (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 30227-07-7P 31646-22-7P 59360-41-7P 59360-42-8P
59360-43-9P 59360-44-0P 59360-45-1P 59360-46-2P
59360-47-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

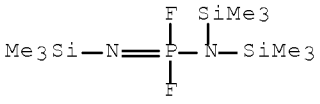
L26 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1976:164942 HCAPLUS Full-text
DOCUMENT NUMBER: 84:164942
ORIGINAL REFERENCE NO.: 84:26787a,26790a
TITLE: Reaction of an N-silylated iminophosphine (phospha(III)azene) with halogen compounds of elements of main Groups IV and VII
AUTHOR(S): Niecke, Edgar; Bitter, Wolfhelm
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1976), 109(2), 415-25
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
GI For diagram(s), see printed CA Issue.
AB The reaction of (Me3Si)2NP:NSiMe3 (I) with RX gave (Me3Si)2NPR(:NSiMe3)X (X, R, given): Cl, CCl3; Br, Me2CH; I, Et. The reaction of I with SiX4 gave II (X = Cl, Br). Similarly, I and GeCl4 gave (Me3Si)2NPClN(SiMe3)GeCl3, which cyclized to give III. The reaction of I with SnCl4 gave (Me3Si)2NP(:NSiMe3)Cl2

and SnCl2. Halogenation of I gave, quant., (Me3Si)2NP(:NSiMe3)X2 [X = Cl, F, Br (IV), I (V)]. Decomposition of IV and V gave VI (X = Br, I).

IT 58972-02-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 58972-02-4 HCAPLUS

CN Phosphoramidimidic difluoride, tris(trimethylsilyl)- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)

IT 50732-23-5P 58971-93-0P 58971-94-1P 58971-95-2P 58971-96-3P
58971-97-4P 58971-98-5P 58971-99-6P 58972-00-2P 58972-01-3P
58972-02-4P 58972-03-5P 58972-04-6P 58972-05-7P
58972-06-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L26 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1975:86342 HCAPLUS Full-text

DOCUMENT NUMBER: 82:86342

ORIGINAL REFERENCE NO.: 82:13803a,13806a

TITLE: 2-(Isocyanatoalkenyl)tetrafluorophosphoranes

AUTHOR(S): Markovskii, L. N.; Stukalo, E. A.

CORPORATE SOURCE: Inst. Org. Chem., Kiev, USSR

SOURCE: Phosphorus and the Related Group V Elements (1974), 4(4), 237-40
CODEN: PHUSBV; ISSN: 0369-9722

DOCUMENT TYPE: Journal

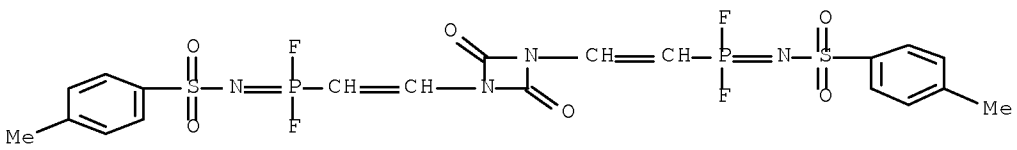
LANGUAGE: English

AB The fluorination of Cl2P(O)CH:CRN:CCl2 I (R = H, Me) with NaF gave F2P(O)CH:CRN:CCl2 III, which are converted by hexamethyl-disiloxane or hexamethyldisilthiane to F2P(O)CH:CRR1 [R1 = NCO (III), NCS]. The reaction of III with SF4 yields F4PCH:-CRNCO IV. Treatment of I or II with SbF3 produces F2P(O)CH:CRN:CF2, which during the reaction isomerize to IV.

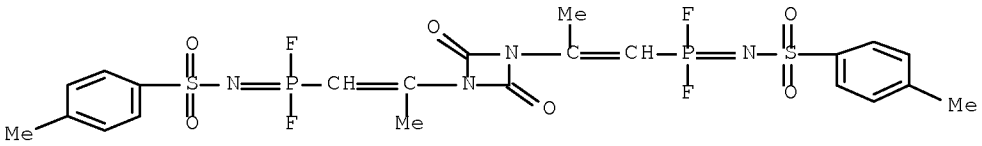
IT 55422-32-7P 55422-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 55422-32-7 HCAPLUS

CN Phosphonimidic difluoride, P,P'-[(2,4-dioxo-1,3-diazetidine-1,3-diyl)di-2,1-ethenediyl]bis[N-[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

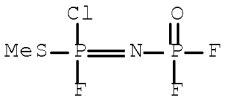


RN 55422-33-8 HCAPLUS
CN Phosphonimidic difluoride, P,P'-[(2,4-dioxo-1,3-diazetidine-1,3-diyl)bis(2-methyl-2,1-ethenediyl)]bis[N-[(4-methylphenyl)sulfonyl]-(9CI) (CA INDEX NAME)

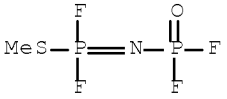


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 54943-85-0P 55422-21-4P 55422-24-7P 55422-25-8P 55422-26-9P
55422-27-0P 55422-28-1P 55422-29-2P 55422-30-5P 55422-31-6P
55422-32-7P 55422-33-8P 55474-10-7P
55500-49-7P 55523-01-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

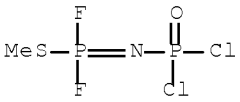
L26 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1972:434644 HCAPLUS Full-text
DOCUMENT NUMBER: 77:34644
ORIGINAL REFERENCE NO.: 77:5779a,5782a
TITLE: Solvolysis of halo phosphazenes
AUTHOR(S): Roesky, H. W.; Kuhtz, B. H.; Grimm, L. F.
CORPORATE SOURCE: Inst. Anorg. Chem. I, Univ. Frankfurt, Frankfurt/M., Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1972), 389(2), 167-76
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
AB SPX2N:PX3 (X = F and/or Cl) reacted with MeOH or EtOH with cleavage of a P-Cl bond to give 9 S-alkyl esters RSPX2:NP(O)X2. The mechanism of the rearrangement of O-alkyl to S-alkyl esters was discussed and an unambiguous structural assignment was made based on ir or NMR investigations. Strong carboxylic acids reacted to give SPX2NHP(O)X2, whereas weak carboxylic acids e.g. AcOH yielded SPX2NHC(O)Me derivs. These compds. were also prepared from P amides, SPX2NH2, and AcCl.
IT 33926-65-7P 33926-67-9P 37632-45-4P
37632-46-5P 37632-48-7P 37758-23-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 33926-65-7 HCAPLUS
CN Phosphorochloridofluoridimidothioic acid, (difluorophosphinyl)-, methyl ester (8CI, 9CI) (CA INDEX NAME)



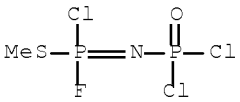
RN 33926-67-9 HCAPLUS
CN Phosphorodifluoridimidothioic acid, (difluorophosphinyl)-, methyl ester (8CI, 9CI) (CA INDEX NAME)



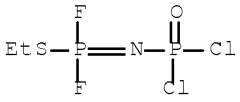
RN 37632-45-4 HCAPLUS
CN Phosphorodifluoridimidothioic acid, (dichlorophosphinyl)-, methyl ester (9CI) (CA INDEX NAME)



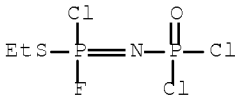
RN 37632-46-5 HCAPLUS
CN Phosphorochloridofluoridimidothioic acid, (dichlorophosphinyl)-, methyl ester (9CI) (CA INDEX NAME)



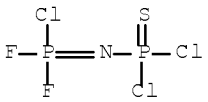
RN 37632-48-7 HCAPLUS
CN Phosphorodifluoridimidothioic acid, (dichlorophosphinyl)-, ethyl ester (9CI) (CA INDEX NAME)



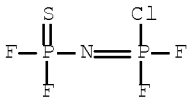
RN 37758-23-9 HCAPLUS
CN Phosphorochloridofluoridimidothioic acid, (dichlorophosphinyl)-, ethyl ester (9CI) (CA INDEX NAME)



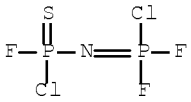
IT 24341-15-9 25518-96-1 25518-97-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(solvolysis of)
RN 24341-15-9 HCAPLUS
CN Phosphorimidic chloride difluoride, (dichlorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



RN 25518-96-1 HCAPLUS
CN Phosphorimidic chloride difluoride, (difluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



RN 25518-97-2 HCAPLUS
CN Phosphorimidic chloride difluoride, (chlorofluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



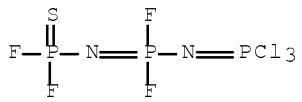
CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 33926-65-7P 33926-66-8P 33926-67-9P
37632-45-4P 37632-46-5P 37632-47-6P
37632-48-7P 37632-49-8P 37632-50-1P 37632-51-2P
37632-52-3P 37758-23-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 14809-12-2 21207-74-9 21207-75-0 21207-76-1
24341-15-9 25518-96-1 25518-97-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(solvolysis of)

L26 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1971:547336 HCAPLUS Full-text
DOCUMENT NUMBER: 75:147336
ORIGINAL REFERENCE NO.: 75:23255a,23258a
TITLE: Phosphorous compounds. 64. Preparation and characterization of linear diphosphazenes
AUTHOR(S): Roesky, H. W.; Grimm, L. F.; Niecke, E.
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1971), 385(1-2), 102-12
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German

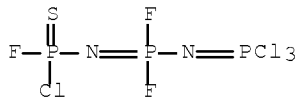
AB S:P(XZ)N:PX2 (X, Z = F, Cl)) reacted with (Me3Si)2NH to give S:P(XZ)N:PCl2NHSiMe3 and S:PCl2N:PFClNHSiMe3. These Si derivative reacted with PCl5 to give S:PCl2N:P(XZ)N:PCl3 and S:P(XZ)N:PCl2N:PCl3. S:PF2N:PF2N:PFCl2 and S:PF2N:PFClN:PFCl2 were formed by dismutation. S:PCl2N:PF2NH2 reacted with PF3Cl2 to give S:PCl2N:PF2N:PF3. The compds. were characterized by ir, NMR, and mass spectra.

IT 28316-00-9P 28316-01-0P 34118-55-3P
34118-59-7P 34118-60-0P 34118-61-1P
34118-62-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

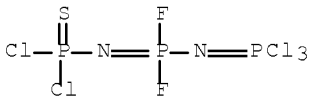
RN 28316-00-9 HCAPLUS
CN Phosphorimidic trichloride, [N-(difluorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



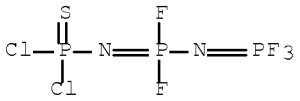
RN 28316-01-0 HCAPLUS
CN Phosphorimidic trichloride, [N-(chlorofluorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



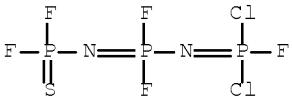
RN 34118-55-3 HCAPLUS
CN Phosphorimidic trichloride, [N-(dichlorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



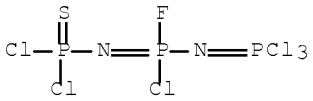
RN 34118-59-7 HCAPLUS
CN Phosphorimidic trifluoride, [N-(dichlorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



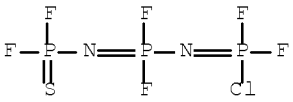
RN 34118-60-0 HCAPLUS
CN Phosphorimidic dichloride fluoride, [N-(difluorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



RN 34118-61-1 HCAPLUS
CN Phosphorimidic trichloride, [P-chloro-N-(dichlorophosphinothioyl)-P-fluorophosphinimyl]- (8CI) (CA INDEX NAME)



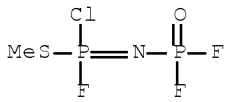
RN 34118-62-2 HCAPLUS
CN Phosphorimidic chloride difluoride, [N-(difluorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



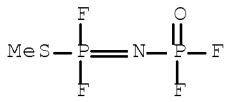
CC 78 (Inorganic Chemicals and Reactions)

IT 17661-22-2P 28316-00-9P 28316-01-0P
34118-49-5P 34118-50-8P 34118-51-9P 34118-52-0P
34118-55-3P 34118-56-4P 34118-57-5P
34118-59-7P 34118-60-0P 34118-61-1P
34118-62-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

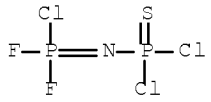
L26 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1971:536659 HCAPLUS Full-text
DOCUMENT NUMBER: 75:136659
ORIGINAL REFERENCE NO.: 75:21553a,21556a
TITLE: Formation of an S-methyl derivative from the reaction of methanol with compounds of the type S:PX2N:PF2Cl
AUTHOR(S): Roesky, H. W.; Grimm, L. F.
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Journal of the Chemical Society [Section] D: Chemical Communications (1971), (17), 998
CODEN: CCJDAO; ISSN: 0577-6171
DOCUMENT TYPE: Journal
LANGUAGE: English
AB S:PX2N:PF2Cl (X = F or Cl) reacted with MeOH to give MeSPX2:NPF2:O, which was characterized by ir and NMR spectra.
IT 33926-65-7P 33926-67-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 33926-65-7 HCAPLUS
CN Phosphorochloridofluoridimidothioic acid, (difluorophosphinyl)-, methyl ester (8CI, 9CI) (CA INDEX NAME)



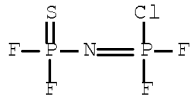
RN 33926-67-9 HCAPLUS
CN Phosphorodifluoridimidothioic acid, (difluorophosphinyl)-, methyl ester (8CI, 9CI) (CA INDEX NAME)



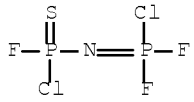
IT 24341-15-9 25518-96-1 25518-97-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methanol)
RN 24341-15-9 HCAPLUS
CN Phosphorimidic chloride difluoride, (dichlorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



RN 25518-96-1 HCAPLUS
CN Phosphorimidic chloride difluoride, (difluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



RN 25518-97-2 HCAPLUS
CN Phosphorimidic chloride difluoride, (chlorofluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



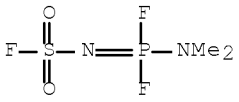
CC 78 (Inorganic Chemicals and Reactions)
IT 33926-65-7P 33926-66-8P 33926-67-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 24341-15-9 25518-96-1 25518-97-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methanol)

L26 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1970:455568 HCAPLUS Full-text
DOCUMENT NUMBER: 73:55568
ORIGINAL REFERENCE NO.: 73:9129a,9132a
TITLE: Phosphorus compounds. 52. Splitting reactions at the silicon-nitrogen bond with N-trihalophosphoranylidene compounds
AUTHOR(S): Roesky, Herbert W.; Boewing, Walter G.
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1970), 103(7), 2281-7
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
AB RN:PX3 reacted with Me3SiR1 to give RN:PXnR13-n (I) (where R = FSO2, ClSO2, or P3N3F5; X = F or Cl; R1 = NMe2 or NCS; and n = 2 or 1) with 12-17% yield for

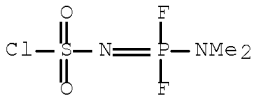
R1 = NCS and 60-91% yield for R1 = NMe2. The properties, NMR, ir, and mass spectra are reported for I.

IT 28924-16-5P 28924-17-6P 28925-29-3P
28925-30-6P 28925-31-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

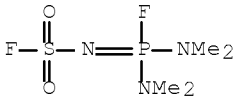
RN 28924-16-5 HCAPLUS
CN Sulfamoyl fluoride, N-[(dimethylamino)difluorophosphoranylidene]-
(CA INDEX NAME)



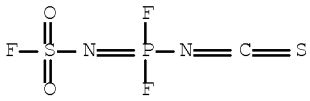
RN 28924-17-6 HCAPLUS
CN Sulfamoyl chloride, N-[(dimethylamino)difluorophosphoranylidene]-
(CA INDEX NAME)



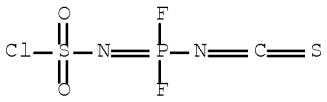
RN 28925-29-3 HCAPLUS
CN Sulfamoyl fluoride, N-[bis(dimethylamino)fluorophosphinylidene]-
(CA INDEX NAME)



RN 28925-30-6 HCAPLUS
CN Sulfamoyl fluoride, N-(difluoroisothiocyanatophosphoranylidene)-
(CA INDEX NAME)

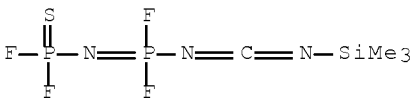


RN 28925-31-7 HCAPLUS
CN Sulfamoyl chloride, N-(difluoroisothiocyanatophosphoranylidene)-
(CA INDEX NAME)



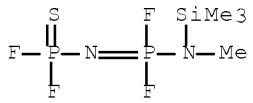
CC 23 (Aliphatic Compounds)
IT 28924-16-5P 28924-17-6P 28925-29-3P
28925-30-6P 28925-31-7P 28925-32-8P
28925-33-9P 28925-34-0P 28925-35-1P 28981-20-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1970:441397 HCAPLUS Full-text
DOCUMENT NUMBER: 73:41397
ORIGINAL REFERENCE NO.: 73:6823a,6826a
TITLE: Phosphorus compounds. 50. Reactions with N-halophosphoranylidenethiophosphoryl dihalide amides
AUTHOR(S): Roesky, Herbert W.; Grimm, Ludwig F.
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1970), 103(6), 1664-73
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Reaction of S:PX2N:PF3 (where X = Cl or F) with Me3SiNMe2 gave 65-72% S:PX2N:PF2NMe2 (I). I (X = F) reacted with Me3SiNR2 (where R = Me or Et) to give 40-55% S:PF2N:PF(NMe2)(NR2). Similarly prepared were S:PF2N:PF2R1 (where R1 = N:C:NSiMe3 or NCS). The substitutions occurred only at the PF3 group and isomeric compds. were not formed. S:PCl2NH2 and excess PF3Cl2 gave 10% S:PCl2NPFCl2. S:PF2N:PF2Br (25%) and 28% S:PFClN:PF2Br were formed by the cleavage of the corresponding I with HBr. The 1H-, 19F-NMR, ir, and mass spectra of the compds. prepared were reported and discussed.
IT 27351-98-0P 27351-99-1P 27352-02-9P
27352-03-0P 27352-04-1P 27352-05-2P
27352-06-3P 27352-07-4P 27352-09-6P
27352-10-9P 27352-11-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 27351-98-0 HCAPLUS
CN Phosphoramidothioic difluoride, [difluoro[[(trimethylsilyl)imidocarbonyl]amino]phosphoranylidene]- (8CI) (CA INDEX NAME)

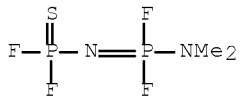


RN 27351-99-1 HCAPLUS
CN Phosphoramidothioic difluoride, [difluoro[methyl(trimethylsilyl)amino]phosphoranylidene]- (8CI) (CA

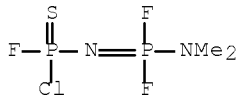
INDEX NAME)



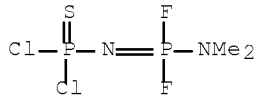
RN 27352-02-9 HCAPLUS
CN Phosphoramidothioic difluoride,
[(dimethylamino)difluorophosphoranylidene]- (8CI) (CA INDEX NAME)



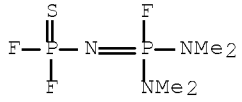
RN 27352-03-0 HCAPLUS
CN Phosphoramidimidic difluoride,
N'-(chlorofluorophosphinothioyl)-N,N-dimethyl- (CA INDEX NAME)



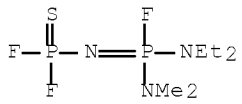
RN 27352-04-1 HCAPLUS
CN Phosphoramidothioic dichloride,
[(dimethylamino)difluorophosphoranylidene]- (8CI) (CA INDEX NAME)



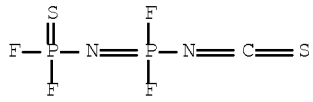
RN 27352-05-2 HCAPLUS
CN Phosphoramidothioic difluoride,
[bis(dimethylamino)fluorophosphoranylidene]- (8CI) (CA INDEX NAME)



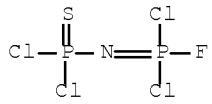
RN 27352-06-3 HCAPLUS
CN Phosphoramidothioic difluoride, [(diethylamino)(dimethylamino)fluorophosphoranylidene]- (8CI) (CA INDEX NAME)



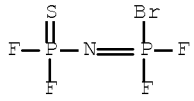
RN 27352-07-4 HCAPLUS
CN Phosphoramidothioic difluoride, (difluoroisothiocyanatophosphoranylidene)- (8CI) (CA INDEX NAME)



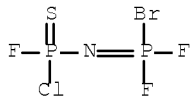
RN 27352-09-6 HCAPLUS
CN Phosphorimidic dichloride fluoride, (dichlorophosphinothioyl)- (8CI) (CA INDEX NAME)



RN 27352-10-9 HCAPLUS
CN Phosphorimidic bromide difluoride, (difluorophosphinothioyl)- (8CI) (CA INDEX NAME)

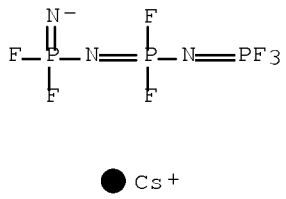


RN 27352-11-0 HCAPLUS
CN Phosphorimidic bromide difluoride, (chlorofluorophosphinothioyl)- (8CI) (CA INDEX NAME)



CC 78 (Inorganic Chemicals and Reactions)
IT 27351-98-0P 27351-99-1P 27352-00-7P
27352-02-9P 27352-03-0P 27352-04-1P
27352-05-2P 27352-06-3P 27352-07-4P
27352-08-5P 27352-09-6P 27352-10-9P
27352-11-0P 27375-32-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

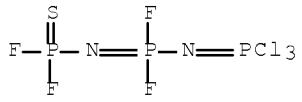
L26 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1970:420978 HCAPLUS Full-text
DOCUMENT NUMBER: 73:20978
ORIGINAL REFERENCE NO.: 73:3479a,3482a
TITLE: New anionic derivative of P3N3F6
AUTHOR(S): Douglas, W. M.; Cooke, M.; Lustig, M.; Ruff, J. K.
CORPORATE SOURCE: Dep. of Chem., Univ. of Georgia, Athens, GA, USA
SOURCE: Inorganic and Nuclear Chemistry Letters (1970), 6(4), 409-11
CODEN: INUCAF; ISSN: 0020-1650
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB CsF reacts with the cyclic phosphonitrile fluoride trimer, P3N3F6, in anhydrous MeCN to give CsP3N3F7. Possible structures for the anion P3N3F7- are linear PF3:NPF2:NPF2:N- or cyclic (I).
IT 27321-60-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 27321-60-4 HCAPLUS
CN Phosphorimidic trifluoride, [N-(P,P-difluorophosphinimyl)-P,P-difluorophosphinimyl]-, ion(1-), cesium (8CI) (CA INDEX NAME)



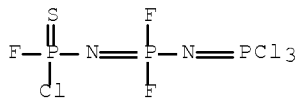
CC 78 (Inorganic Chemicals and Reactions)
IT 27321-60-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1970:128270 HCAPLUS Full-text
DOCUMENT NUMBER: 72:128270
ORIGINAL REFERENCE NO.: 72:22995a,22998a
TITLE: Phosphorus compounds. 51. Method for preparation of compounds of the type R-(N=PX2)x-N=PCl3
AUTHOR(S): Roesky, Herbert W.; Grimm, Ludwig F.
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Angewandte Chemie, International Edition in English (1970), 9(3), 244-5
CODEN: ACIEAY; ISSN: 0570-0833
DOCUMENT TYPE: Journal
LANGUAGE: English
AB XP(:S)FN:PF2NHSiMe3 were treated with PCl5 at 60-80° to give XP(:S)FN:PF2N:PCl3 (I) (where X = F, 25% yield; or X = Cl, 45% yield). I will in turn add another PN:P-linkage on treatment with HN(SiMe3)2 and PCl5.
IT 28316-00-9P 28316-01-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 28316-00-9 HCAPLUS
CN Phosphorimidic trichloride, [N-(difluorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



RN 28316-01-0 HCAPLUS
CN Phosphorimidic trichloride, [N-(chlorofluorophosphinothioyl)-P,P-difluorophosphinimyl]- (8CI) (CA INDEX NAME)



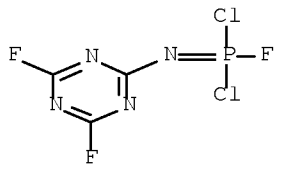
CC 78 (Inorganic Chemicals and Reactions)
IT 28316-00-9P 28316-01-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1970:8805 HCAPLUS Full-text
DOCUMENT NUMBER: 72:8805
ORIGINAL REFERENCE NO.: 72:1589a,1592a
TITLE: Phosphorus compounds. XL. Substitution reactions of phosphorus and sulfur amides
AUTHOR(S): Roesky, Herbert W.; Boewing, Walter G.
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Naturforschung, Teil B:

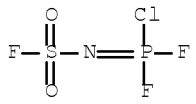
Anorganische Chemie, Organische Chemie, Biochemie, Biophysik, Biologie (1969), 24(10), 1250-3
CODEN: ZENBAX; ISSN: 0044-3174
DOCUMENT TYPE: Journal
LANGUAGE: German

AB MeP(S)FNH2 (37 g) and 20.2 g Et3N in 300 ml Et2O were treated with 21.7 g Me3SiCl at room temperature to give 83% MeP(S)FNHSiMe3, b0.01 33°; similarly prepared was 75% EtP(S)FNHSiMe3, b0.01 42°. EtP(S)FNH2 (65 g) was added dropwise to a suspension of 150 g PCl5 in 100 ml CCl4 at room temperature to give 22% EtP(S)FNPCl3. Partial ammonolysis of PhPSF2 at -80° gave 16% PhP(S)FNH2, b0.01 110°. 2,4,4,6,6-Pentafluoro-2-amino-2,2,4,4,6,6- hexahydro-1,3,5,2,4,6-triazatriphosphorine (P3N3F5NH2) (50 g) was condensed with a 2-fold excess of PF3Cl2 at -80° to give 96% P3N3F5NPF3, b28 37°. Similarly 2-amino-4,6-difluoro-s-triazine and PF3Cl2 give 24% 2-(N-dichlorofluoro-phosphanylideneimino)-4,6-difluoro-s-triazine, b0.01 43°. FSO2NH2 was added dropwise to PF3Cl2 at -80° to give 65% FSO2NPF3, b17 30°, which was treated with PF3Cl2 at 50° to give 35% FSO2NPF2Cl, b13 46°. The compds. were characterized by ir, NMR, and mass spectra.

IT 24623-74-3P 24623-75-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 24623-74-3 HCAPLUS
CN Phosphorimidic dichloride fluoride, (4,6-difluoro-s-triazin-2-yl)- (8CI) (CA INDEX NAME)



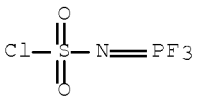
RN 24623-75-4 HCAPLUS
CN Sulfamoyl fluoride, N-(chlorodifluorophosphoranylidene)- (CA INDEX NAME)



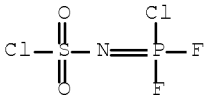
CC 78 (Inorganic Chemicals and Reactions)
IT 24623-70-9P 24623-71-0P 24623-72-1P 24623-73-2P
24623-74-3P 24623-75-4P 27830-53-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1969:497887 HCAPLUS Full-text
DOCUMENT NUMBER: 71:97887
ORIGINAL REFERENCE NO.: 71:18235a,18238a
TITLE: Preparation and characterization of ClSO2N:PF3

and ClSO2N:PF2Cl
AUTHOR(S): Roesky, Herbert W.; Grosse Boewing, W.
CORPORATE SOURCE: Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Inorganic and Nuclear Chemistry Letters (1969), 5(7), 597-9
CODEN: INUCAF; ISSN: 0020-1650
DOCUMENT TYPE: Journal
LANGUAGE: German
AB ClSO2NH2 reacts with PF3Cl2 in CCl4 at room temperature to give ClSO2N:PF3, 95% yield. Excess PF3Cl2 reacts with ClSO2NPF3 at 50° to give ClSO2N:PF2Cl, 23% yield. The compds. are colorless liqs., fume strongly in air, and are very reactive with traces of moisture.
IT 25417-76-9P 25417-77-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 25417-76-9 HCAPLUS
CN Sulfamoyl chloride, N-(trifluorophosphoranylidene)- (CA INDEX NAME)



RN 25417-77-0 HCAPLUS
CN Sulfamoyl chloride, N-(chlorodifluorophosphoranylidene)- (CA INDEX NAME)



CC 78 (Inorganic Chemicals and Reactions)
IT 25417-76-9P 25417-77-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1969:475980 HCAPLUS Full-text
DOCUMENT NUMBER: 71:75980
ORIGINAL REFERENCE NO.: 71:14081a,14084a
TITLE: Nuclear magnetic resonance of phosphorus compounds. XXI. Phosphorus-fluorine coupling constants in compounds with tetra-coordinated phosphorus
AUTHOR(S): Fluck, Ekkehard; Heckmann, Gernot
CORPORATE SOURCE: Univ. Stuttgart, Stuttgart, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie, Biochemie, Biophysik, Biologie (1969), 24(8), 953-9
CODEN: ZENBAX; ISSN: 0044-3174
DOCUMENT TYPE: Journal

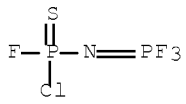
LANGUAGE: German

AB The 31P and 19F N.-M.R. spectra of a series of F-containing compds. with a PN:P framework are presented as well as P-F coupling data for compds. containing tetra-coordinated P. The compds. studied in detail are: Cl2P(S)N:PF2Cl, X2P(S)N:PF3 (X = Cl, F), ClFP(S)N:PF3, ClFP(S)N:PCl2Ph, ClFP(S)N:PClPh2, ClFP(S)NHSiMe3, and F2P(S)NHSiMe3. The relation between the size of the coupling constant and the electronegativity of the atoms bound to a given P atom is discussed.

IT 22341-49-7 22341-50-0 24341-15-9
24341-16-0
RL: PRP (Properties)
(nuclear magnetic resonance of)

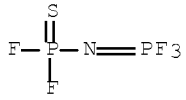
RN 22341-49-7 HCAPLUS

CN Phosphorimidic trifluoride, (chlorofluorophosphinothioyl)- (8CI) (CA INDEX NAME)



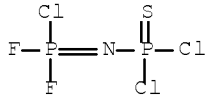
RN 22341-50-0 HCAPLUS

CN Phosphorimidic trifluoride, (difluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



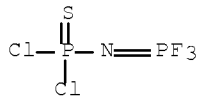
RN 24341-15-9 HCAPLUS

CN Phosphorimidic chloride difluoride, (dichlorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



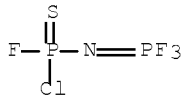
RN 24341-16-0 HCAPLUS

CN Phosphorimidic trifluoride, (dichlorophosphinothioyl)- (8CI) (CA INDEX NAME)

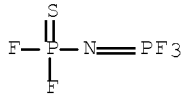


CC 73 (Spectra and Other Optical Properties)
IT 22341-49-7 22341-50-0 23755-68-2
23755-70-6 24341-15-9 24341-16-0
24341-19-3, Phosphoramidothioic chloride fluoride,
(dichlorophenylphosphoranylidene)- 24341-20-6
RL: PRP (Properties)
(nuclear magnetic resonance of)

L26 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1969:456191 HCAPLUS Full-text
DOCUMENT NUMBER: 71:56191
ORIGINAL REFERENCE NO.: 71:10341a,10344a
TITLE: Phosphorus compounds. XXVIII. Preparation and characterization of thiophosphoryl compounds containing a phosphorus-nitrogen double bond
AUTHOR(S): Roesky, Herbert W.; Grimm, Ludwig F.
CORPORATE SOURCE: Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1969), 102(7), 2319-29
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The reaction of SPFClNH2 with PF3Cl2 gave SPFClN:PF2Cl. Similarly were prepared 14 SPX2N:PY3 (X = F or Cl; Y = F, Cl, or Ph). The reaction of SPFBr2 with NH3 in Et2O at -80° gave SPFBrNH2. The treatment of SPCl2NH2 with SbF3 in the presence of SbCl5 gave SPF2NH2. Mass, ir, and 1H- and 19F-N.M.R. spectra are given.
IT 22341-49-7P 22341-50-0P, Phosphorimidic trifluoride, (difluorophosphinothioyl)- 24341-15-9P 24341-16-0P 25518-96-1P 25518-97-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 22341-49-7 HCAPLUS
CN Phosphorimidic trifluoride, (chlorofluorophosphinothioyl)- (8CI) (CA INDEX NAME)

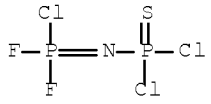


RN 22341-50-0 HCAPLUS
CN Phosphorimidic trifluoride, (difluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)

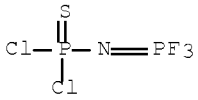


RN 24341-15-9 HCAPLUS
CN Phosphorimidic chloride difluoride, (dichlorophosphinothioyl)- (8CI,

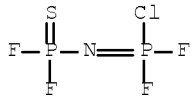
9CI) (CA INDEX NAME)



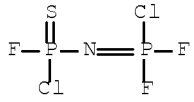
RN 24341-16-0 HCAPLUS
CN Phosphorimidic trifluoride, (dichlorophosphinothioyl)- (8CI) (CA INDEX NAME)



RN 25518-96-1 HCAPLUS
CN Phosphorimidic chloride difluoride, (difluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



RN 25518-97-2 HCAPLUS
CN Phosphorimidic chloride difluoride, (chlorofluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



CC 78 (Inorganic Chemicals and Reactions)
IT 14809-09-7P 22341-49-7P 22341-50-0P, Phosphorimidic trifluoride, (difluorophosphinothioyl)- 24341-15-9P 24341-16-0P 24341-19-3P 24341-20-6P 25518-84-7P 25518-85-8P 25518-86-9P 25518-89-2P 25518-90-5P 25518-91-6P 25518-92-7P 25518-96-1P 25518-97-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

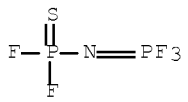
L26 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1969:92790 HCAPLUS Full-text
DOCUMENT NUMBER: 70:92790
ORIGINAL REFERENCE NO.: 70:17351a,17354a
TITLE: Synthesis of trifluorophosphazo compounds
AUTHOR(S): Lustig, Max
CORPORATE SOURCE: Memphis State Univ., Memphis, TN, USA
SOURCE: Inorganic Chemistry (1969), 8(3), 443-5
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English

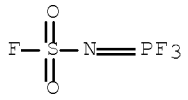
AB Trifluorophosphazosulfuryl fluoride, PF3:NSO2F, trifluorophosphazophosphoryl fluoride, PF3:NP(O)F2, and trifluorophosphazothiophosphoryl fluoride, PF3:NP(S)F2, are prepared by the reaction between PF3Cl2 and FSO2NH2, F2P(O)NH2, and F2P(S)NH2, resp. Some properties of these new compds., including F2P(S)NH2, have been studied.

IT 22341-50-0P 22474-62-0P 22474-63-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

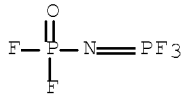
RN 22341-50-0 HCAPLUS
CN Phosphorimidic trifluoride, (difluorophosphinothioyl)- (8CI, 9CI) (CA INDEX NAME)



RN 22474-62-0 HCAPLUS
CN Sulfamoyl fluoride, N-(trifluorophosphoranylidene)- (CA INDEX NAME)

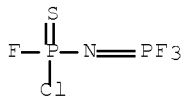


RN 22474-63-1 HCAPLUS
CN Phosphorimidic trifluoride, (difluorophosphinyl)- (8CI, 9CI) (CA INDEX NAME)

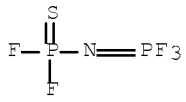


CC 78 (Inorganic Chemicals and Reactions)
IT 14809-12-2P 22341-50-0P 22474-62-0P 22474-63-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1969:83821 HCAPLUS Full-text
DOCUMENT NUMBER: 70:83821
ORIGINAL REFERENCE NO.: 70:15663a,15666a
TITLE: Phosphorus compounds. XXVII. Preparation of trifluorophosphazo-thiophosphoryl chloride fluoride, trifluorophosphazothiophosphoryl difluoride, and thiophosphoryl amide bromide fluoride
AUTHOR(S): Roesky, Herbert W.; Grimm, L. F.
CORPORATE SOURCE: Univ. Goettingen, Goettingen, Fed. Rep. Ger.
SOURCE: Inorganic and Nuclear Chemistry Letters (1969), 5(1), 13-16
CODEN: INUCAF; ISSN: 0020-1650
DOCUMENT TYPE: Journal
LANGUAGE: German
AB ClFP(:S)NH2 or F2P(:S)NH2 reacts with Cl2PF3 at -20° in a 1:1 molar ratio to give ClFP(:S)N:PF3, b58 34°, and F2P(:S)N:PF3 b242 31°, resp. S:PFBr2 reacts with NH3 in a 1:2 molar ratio at -80° in Et2O to form BrFP(:S)NH2, b0.03 39-40°. The compds. were characterized by N.M.R., ir, and mass spectra.
IT 22341-49-7P 22341-50-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 22341-49-7 HCAPLUS
CN Phosphorimidic trifluoride, (chlorofluorophosphinothioyl)- (8CI)
(CA INDEX NAME)



RN 22341-50-0 HCAPLUS
CN Phosphorimidic trifluoride, (difluorophosphinothioyl)- (8CI, 9CI)
(CA INDEX NAME)



CC 78 (Inorganic Chemicals and Reactions)
IT 14809-09-7P 22341-49-7P 22341-50-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

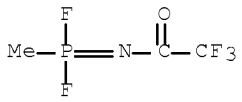
L26 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1968:13094 HCAPLUS Full-text
DOCUMENT NUMBER: 68:13094
ORIGINAL REFERENCE NO.: 68:2523a
TITLE: Characteristics of alkyl dichlorophosphazotrifluoracetyls and of their

reaction products
AUTHOR(S): Lysenko, V. V.; Ivin, S. Z.; Karavanov, K. V.; Fedotova, V. V.
SOURCE: Zhurnal Obshchei Khimii (1967), 37(5), 1096-105
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

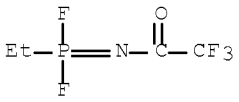
AB RPCl2:NCOCF3 (I) showed evidence of decreasing conjugation in the P:NC:O system with increasing electronegativity of R. I (R = CF3) kept in moist air 2 hrs. gave 99% CCl3P(O)(Cl)NHCOCF3, m. 105°. I (R = Et) in C6H6 treated in the cold with 1 mole 100% HCO2H gave 50% EtP(O)(Cl)NHCOCF3, m. 45-6°; CO and HCl also formed. AcOH, finally at 40-50° 4 hrs., then in vacuo at 30°, similarly gave 77% same product, along with AcCl. I and 2 moles EtONa in EtOH at -5° gave the following RP(OEt)2:NCOCF3 (R, % yield, b.p., d20, and n20D given): Me, 33, b1 83-4°, 1.2310, 1.4022; Et, 24, b2.5 94-5°, 1.1820, 1.4020; iso-Pr, 25, b0.2 78-80°, 1.1512, 1.4050; MeEtCH 48, b2 100-4°, 1.1345, 1.4078. The molar refractions of these were 0.5-0.6 units below the calculated when the group refraction for P:N was taken as 5.78. I and EtSNa in Et2O, finally at reflux, gave 18% EtP(SEt)2:NCOCF3, b1 120-4°, 1.2702, 1.4949. I and EtOH in the presence of Et3N in Et2O gave after 1 hr. at room temperature 60% EtP(OEt)(Cl):NCOCF3, b1 78-84°, 1.3244, 1.4175, which retained some diethoxy analog after repeated distns. Similarly was prepared 49% EtP(Cl)(OCH2CHMe2):NCOCF3, b4 103-8°, 1.2308, 1.4210. I and 1 mole Et2NH in Et2O-Et3N in the cold gave 47% EtP(NEt2)(Cl):NCOCF3, b2-3 121-3°, 1.2522, 1.4459. I (R = Me) and SbF3 (mixed slowly) gave 33.5% MePF2:NCOCF3, b1.5 37-9°, 1.5064, 1.3508; similarly was prepared 42% Et analog, b1.5 41-1.5°, 1.4509, 1.3576; and 23.7% iso-Pr analog, b1 38-42°, 1.3625, 1.3642. I (R = Me) heated to 180° decomposed to 65% MePOCl2 and 55.5% CF3CN; similarly I (R = Et) gave 52% EtPOCl2, b. 175-6°, 1.3750, 1.4641, and 51% CF2CN. I (R = Et) (5.6 g.) added slowly at -50° to 3.1 g. AlCl3, then warmed to room temperature gave a grey mass, which heated to 60-70°, finally in vacuo 1 hr., gave 99% I (R = Et).AlCl3 (Ia) complex, a viscous brown oil; a similar oily complex was formed with I (R = iso-Pr). The complex Ia and pyridine gave 77.5% I (R = Et). Dry HCl passed into EtP(OEt)2:NCOCF3 at 10-15° (cooling) gave 56% CF3CONHP(O)Et(OEt), b0.5 105°, 1.3250, 1.4023. Addition of 7 g. EtP(NEt2)(Cl):NCOCF3 to 0.57 g. Na dissolved in absolute EtOH gave after refluxing 1 hr. 69% EtP(OEt)(NEt2):NCOCF3, b0.5-1 110-12°, 1.1405, 1.4623.

IT 17151-84-7P 17151-85-8P 17151-86-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

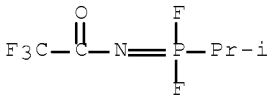
RN 17151-84-7 HCAPLUS
CN Phosphonimidic difluoride, P-methyl-N-(trifluoroacetyl)- (8CI) (CA INDEX NAME)



RN 17151-85-8 HCAPLUS
CN Phosphonimidic difluoride, P-ethyl-N-(trifluoroacetyl)- (8CI) (CA INDEX NAME)



RN 17151-86-9 HCAPLUS
CN Phosphonimidic difluoride, P-isopropyl-N-(trifluoroacetyl)- (8CI) (CA INDEX NAME)



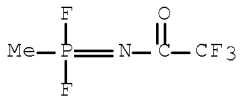
CC 29 (Organometallic and Organometalloidal Compounds)
IT 16966-78-2P 17151-40-5P 17151-41-6P 17151-75-6P 17151-76-7P
17151-77-8P 17151-78-9P 17151-79-0P 17151-80-3P 17151-81-4P
17151-82-5P 17151-83-6P 17151-84-7P
17151-85-8P 17151-86-9P 17151-88-1P
17151-89-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1967:463859 HCAPLUS Full-text
DOCUMENT NUMBER: 67:63859
ORIGINAL REFERENCE NO.: 67:11975a,11978a
TITLE: Preparation of alkyldiflurorphosphazocarbacyls
INVENTOR(S): Ivin, S. Z.; Karavanov, K. V.; Lysenko, V. V.
SOURCE: U.S.S.R. From: Izobret., Prom. Obraztsy, Tovarnye Znaki 1966, 43(23), 17.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

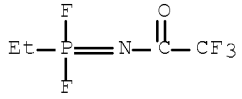
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 188967		19661117	SU	196509 17

<--

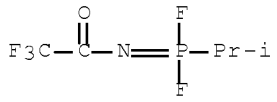
AB The title compds. are prepared from the reaction of alkyldichlorophosphazocarbacyls with SbF3 in vacuo.
IT 17151-84-7P 17151-85-8P 17151-86-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 17151-84-7 HCAPLUS
CN Phosphonimidic difluoride, P-methyl-N-(trifluoroacetyl)- (8CI) (CA INDEX NAME)



RN 17151-85-8 HCAPLUS
CN Phosphonimidic difluoride, P-ethyl-N-(trifluoroacetyl)- (8CI) (CA INDEX NAME)



RN 17151-86-9 HCAPLUS
CN Phosphonimidic difluoride, P-isopropyl-N-(trifluoroacetyl)- (8CI) (CA INDEX NAME)



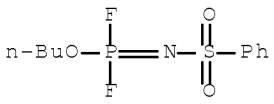
IC C07F
CC 23 (Aliphatic Compounds)
IT 17151-84-7P 17151-85-8P 17151-86-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L26 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1965:497909 HCAPLUS Full-text
DOCUMENT NUMBER: 63:97909
ORIGINAL REFERENCE NO.: 63:17949f-h,17950a
TITLE: Alkoxy- and aryloxydihalophosphazosulfonylaryls
AUTHOR(S): Ivanova, Zh. M.; Levchenko, E. S.; Kirsanov, A. V.
CORPORATE SOURCE: Inst. Org. Chem., Kiev
SOURCE: Zhurnal Obshchei Khimii (1965), 35(9), 1607-12
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Treatment of 0.12 mol ROPCl2 or ROPF2 in C6H6 at below 50° with 0.05 mol ArSO2NCl2 gave after 1 h. 100% residual oily ArSO2N:PX2OR (Ar, R, and X shown) after removal of volatile products in vacuo; similar reaction with PhOPX2 was run with ice cooling initially, then at 50-60° in vacuo: Ph, Me, Cl; Ph, Et, Cl; Ph, Pr, Cl; Ph, Pr, F; Ph, iso-Pr, Cl; Ph, Bu, Cl (Ia); Ph, Bu, F; Ph, Ph, F; Ph, Ph, Cl (I); p-MeC6H4, Pr, F; p-MeC6H4, iso-Pr, Cl. Exposed to moist air these gave ArSO2NH2. I and ice-cold aqueous K2CO3 gave 44% PhSO2NHP(O)(OPh)Cl as K salt (at N), m. 174-6°. Similarly were prepared other ArSO2NKPOF(OR): Ph, Me, m. 202-5°; Ph, Bu, m. 152-4°; Ph, Ph, m. 131-3°; p-FC6H4, Me, m. 167-9°;

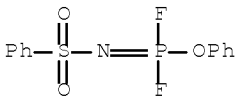
p-ClC6H4, Me, m. 201-3°; p-BrC6H4, Me, m. 216-17°; o-O2NC6H4, Me, m. 151-2°; m-O2NC6H4, Me, m. 206-8°; p-O2NC6H4, Me, m. 219-20°; p-MeC6H4, Me, m. 218-19°; 1-C10H7, Me, m. 182-3°. Similarly were obtained PhSO2NKP(O)Cl2, m. 195-6°, and p-MeCH6H4SO2NKPOCl2, m. 208-10°, from ArSO2N:PCl2OCHMe2. I and saturated aqueous KF gave after extraction with cold MeOH PhSO2NKP(O)(OPh)Cl, which gave the aniline salt, C18H18ClN2O4PS, m. 112-14°. Ia and aqueous KHF gave PhSO2NH2.ArSO2NKPOF2 treated with 1 mol MeONa in dry MeOH gave in 1 h. at room temperature a precipitate of NaF while the filtrate gave ArSO2NKP(O)(OMe)F (II) shown above. Heating aqueous KF with 1-C10H7SO2NPCl3 5-10 min. at 50-60° gave 34% 1-C10H7SO2NKPOF2, m. 264-5°; similarly was prepared p-BrC6H4 analog, m. 269-70°. II and 1 mol MeONa in MeOH gave ArSO2NKPO(OMe)2, which on acidification gave the free esters (Ph, m. 106-8°; o-O2NC6H4, m. 135-6°). PhSO2NKPOF2 and PhNH2.HCl in aqueous solution gave 68% aniline salt C6H6F2NO3PS.C6H7N; similarly was prepared PhSO2NHP(O)(OMe)F.PhNH2, m. 109-11°.

IT 4140-38-9P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, butyl ester 4140-39-0P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, phenyl ester 4140-41-4P, Phosphorodifluoridimidic acid, (p-(tolylsulfonyl)-, propyl ester 4258-27-9P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, propyl ester
RL: PREP (Preparation)
(preparation of)

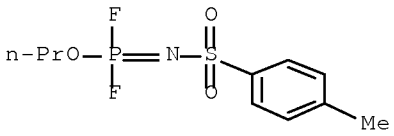
RN 4140-38-9 HCAPLUS
CN Phosphorodifluoridimidic acid, N-(phenylsulfonyl)-, butyl ester (CA INDEX NAME)



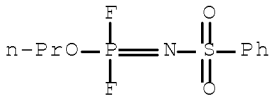
RN 4140-39-0 HCAPLUS
CN Phosphorodifluoridimidic acid, N-(phenylsulfonyl)-, phenyl ester (CA INDEX NAME)



RN 4140-41-4 HCAPLUS
CN Phosphorodifluoridimidic acid, N-[(4-methylphenyl)sulfonyl]-, propyl ester (CA INDEX NAME)



RN 4258-27-9 HCAPLUS
CN Phosphorodifluoridimidic acid, N-(phenylsulfonyl)-, propyl ester (CA INDEX NAME)



CC 35 (Noncondensed Aromatic Compounds)
IT 4140-34-5P, Phosphoramidic acid, [(o-nitrophenyl)sulfonyl]-, dimethyl ester 4140-35-6P, Aniline, compound with Me (phenylsulfonyl)phosphoramidofluoridate (1:1) 4140-36-7P, Aniline, compound with (phenylsulfonyl)phosphoramidic difluoride (1:1) 4140-37-8P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, butyl ester 4140-38-9P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, butyl ester 4140-39-0P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, phenyl ester 4140-40-3P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, phenyl ester 4140-41-4P, Phosphorodifluoridimidic acid, (p-(tolylsulfonyl)-, propyl ester 4140-42-5P, Potassium, [N-(chlorophenoxyphosphinyl)benzenesulfonamido]- 4140-43-6P, Potassium, [N-(fluoromethoxyphosphinyl)benzenesulfonamido]- 4140-44-7P, Potassium, [N-(butoxyfluorophosphinyl)benzenesulfonamido]- 4140-45-8P, Potassium, [N-(fluorophenoxyphosphinyl)benzenesulfonamido]- 4140-46-9P, Potassium, [p-chloro-N-(fluoromethoxyphosphinyl)benzenesulfonamido]- 4140-47-0P, Potassium, [p-bromo-N-(fluoromethoxyphosphinyl)benzenesulfonamido]- 4140-48-1P, Potassium, [N-(fluoromethoxyphosphinyl)-o-nitrobenzenesulfonamido]- 4140-49-2P, Potassium, [N-(fluoromethoxyphosphinyl)-p-nitrobenzenesulfonamido]- 4140-50-5P, Potassium, [N-(fluoromethoxyphosphinyl)-p-toluenesulfonamido]- 4140-51-6P, Potassium, [N-(fluoromethoxyphosphinyl)-1-naphthalenesulfonamido]- 4140-52-7P, Potassium, [N-(dichlorophosphinyl)benzenesulfonamido]- 4140-53-8P, Aniline, compound with Ph (phenylsulfonyl)phosphoramidochloridate (1:1) 4140-54-9P, Potassium, [N-(difluorophosphinyl)-1-naphthalenesulfonamido]- 4140-55-0P, Potassium, [p-bromo-N-(difluorophosphinyl)benzenesulfonamido]- 4140-56-1P, Phosphoramidic acid, (phenylsulfonyl)-, dimethyl ester 4232-96-6P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, isopropyl ester 4232-97-7P, Phosphorodichloridimidic acid, (p-tolylsulfonyl)-, isopropyl ester 4232-98-8P, Potassium, [N-(fluoromethoxyphosphinyl)-m-nitrobenzenesulfonamido]- 4247-66-9P, Potassium, [N-(dichlorophosphinyl)-p-toluenesulfonamido]- 4258-24-6P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, methyl ester 4258-25-7P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, ethyl ester 4258-26-8P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, propyl ester 4258-27-9P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, propyl ester 4263-51-8P, Potassium, [p-fluoro-N-(fluoromethoxyphosphinyl)benzenesulfonamido]-
RL: PREP (Preparation)
(preparation of)

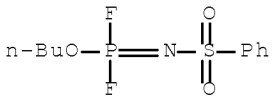
L26 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1965:446279 HCAPLUS Full-text
DOCUMENT NUMBER: 63:46279
ORIGINAL REFERENCE NO.: 63:8373e-h
TITLE: Fungicidal compositions
INVENTOR(S): Lambie, Alan J.; Lane, David W. J.; Saggers, David T.
PATENT ASSIGNEE(S): Fisons Pest Control Ltd.
SOURCE: 15 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 990111		19650428	GB 1960-16222 <--	19600507
PRIORITY APPLN. INFO.:			GB <--	19600507
			GB <--	19600929

GI For diagram(s), see printed CA Issue.

AB The fungicidal composition contains as active ingredient a benzotriazole (I), or the reaction product of maleic acid or anhydride with benzotriazole. Other fungicidal substances such as S, Cu, Ni, or other fungicides may be added. Both as an emulsion and a fine suspension the composition inhibits the growth of parasitic and saprophytic fungi. These compds. are phytotoxic. Thus, β-[2-(4,5,6,7-tetrachlorobenzotriazolyl)]-butyric acid was treated with excess CH2N2 to give the Me ester, m. 85-6°. ClCH2CONEt2 14.9, 4,5,6,7-tetrachlorobenzotriazole Na salt (II) 31.5, and Me2CO 200 was refluxed 1 hr. to give I (R = R1 = R2 = R3 = Cl) (III) (R4 = CH2CONEt2) 21.5 parts, m. 186-8°. II and ClCO2Et gave similarly III (R4 = CO2Et), m. 156-9°. Similarly were prepared the following III (R4 and m.p. given): CH2OMe, 109-10°; Me2NCO, 163-4°; MeNHCO-CH2, 268-9°; morpholinocarbonylmethyl, 262-4°; 1-benzotriazolylmethyl, 197-8°; CH2CONH2, 278-9°; MeO2CCH2, 125-7°. III (R4 = H) 16.4 and maleic acid 7 in C5H5N 45 was heated on a steam bath 10 hrs., treated with Me2CO 15 parts, cooled, and poured into excess dilute HCl, and the precipitate collected, washed with H2O, and crystallized from aqueous AcOH to give the reaction product, m. 172°. 5,6-Diamino-1,2,4-trichlorobenzene 11 in AcOH 120 was treated dropwise at 0-5° with NaNO2 5.5 in H2O 10 to give 4,5,7-trichlorobenzotriazole 6.1 parts, m. 220-2°; similarly prepared was 4,5,6-trichlorobenzotriazole, m. 279-80°. 5-Methoxybenzotriazole 5 in EtOAc 250 was treated with excess Cl to give the 6-chloro derivative 2.7 parts, m. 206-8°. The tautomerism of I shown occurs only when R4 is H. In other cases 2 isomers are possible and were not always identified.

IT 4140-38-9P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, butyl ester
RL: PREP (Preparation)
(preparation of)
RN 4140-38-9 HCAPLUS
CN Phosphorodifluoridimidic acid, N-(phenylsulfonyl)-, butyl ester (CA INDEX NAME)



IC A01N009-20
CC 38 (Heterocyclic Compounds (More Than One Hetero Atom))
IT 4140-37-8P, Phosphorodichloridimidic acid, (phenylsulfonyl)-, butyl ester 4140-38-9P, Phosphorodifluoridimidic acid, (phenylsulfonyl)-, butyl ester 4144-42-7P, Benzotriazole, 4,5,7-trichloro- 4144-43-8P, Benzotriazole, 4,5,6-trichloro- 5560-05-4P, Benzotriazole, 5-chloro-6-methoxy- 92475-52-0P, Benzotriazoleacetic acid, 4,5,6,7-tetrachloro-, methyl ester 93063-98-0P, Benzotriazoleacetamide, 4,5,6,7-tetrachloro- 93112-12-0P, Benzotriazoleacetamide, 4,5,6,7-tetrachloro-N-methyl- 95373-17-4P, Morpholine, 4-[(4,5,6,7-tetrachlorobenzotriazolyl)acetyl]- 95845-58-2P, 1H-Benzotriazole, 1-(benzotriazolylmethyl)-4,5,6,7-tetrachloro-
RL: PREP (Preparation)
(preparation of)

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